FINANCIAL HANDBOOK

LIST OF SECTIONS

Numeric

SECTION		PAGE
1.	Security Selling	1
2.	Securities Markets	63
3.	Interest Rates	139
4.	United States Government Obligations	173
5.	Financial Reports and Analysis	199
6.	Security Analysis	261
7.	Savings Institutions	305
8.	Promotion	347
9.	Forms of Business Organization	367
10.	Corporate Stock	405
11.	Bond Financing and Borrowing	457
12.	Money, Credit and Banking	527
13.	Banking Procedure	569
14.	Trusts and Agencies	607
15.	International Banking	635
16.	Financial Planning	667
17.	Working Capital	707
18.	Fixed Capital	739
19.	Dividends and Surplus	779
20.	Intercorporate Relations	827
21.	Recapitalizations and Readjustments	891
22.	Reorganizations and Bankruptcy	927
23.	Pension and Profit-Sharing Plans	981
24.	Negotiable Instruments	1039
25.	Commodity Trading	1097
26.	Mathematics of Finance	1147
27.	Government Financing Agencies	1243

A.I Curley

LIST OF SECTIONS

Alphabetic

SECTION		PAGE
13.	Banking Procedure	569
11.	Bond Financing and Borrowing	457
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22.	Reorganizations and Bankruptcy	927
7.	Savings Institutions	305
2.	Securities Markets	63
6.	Security Analysis	261
1.	Security Selling	1
14.	Trusts and Agencies	607
4.	United States Government Obligations	173
17.	Working Capital	707

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FINANCIAL HANDBOOK

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Edited by

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8

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PUBLISHERS' PREFACE

In the group of business reference works issued by The Ronald Press Company, this Third Edition provides an up-to-date, comprehensive revision of the FINANCIAL HANDBOOK, first published in 1925. It is issued at a time when finance has assumed a magnitude and tempo heretofore unknown in history, and effort has been made to have the Handbook fully adequate for the needs of bankers, investors, and financial managers, and all who work in contact with them. Reflecting the interests of these, it should also fit the needs of educational institutions training young men for careers in the financial field.

Editorial direction of this revision has been put in the able hands of Jules I. Bogen, Professor of Finance in New York University and Editor of the Journal of Commerce of New York. Author of numerous articles, books, and professional papers in the field of finance, and in active daily work as a consultant, in his task as Editor-in-Chief he has had the advantage of an unusual background of continual study and research, journalistic experience, and active association with financial affairs. He has both maintained the high standards established by the distinguished Editor of the first two editions, Colonel Robert H. Montgomery, and made important contributions of his own throughout the Handbook.

As in the preceding edition, the Editor-in-Chief has had the assistance of a large Board of Contributing and Consulting Editors, whose names and connections are listed elsewhere in the Handbook. The collective experience and authority of the Board is impressive. In a realm so vast as that of finance, everyone continually needs guidance in fields which are not his own specialty. The user of this Handbook has through it the support and counsel of men of seasoned judgment and invaluable experience in all the varied aspects of practical finance he will have to consider. Many of its Sections are among the very best compact presentations of their topics that can be obtained.

In this edition noteworthy changes and improvements have been made in the Editor's skilful adaptation of the Handbook to the far-reaching changes of recent years and to the conditions of the immediate future—the increased scale of financial operations, the influence of government in the money market and conduct of business, the heavier burden of taxation, changing management-employee relationships in

a more complex economy, and demand for financing following scientific developments, new inventions, and improved processes.

With improvements throughout in typography and arrangement as well as up-to-date and adequate subject matter, the Publishers are confident that the popularity of this Third Edition will equal that of the other two.

THE RONALD PRESS COMPANY
Publishers

REVISED PRINTING

In this revised printing of the Third Edition of the FINANCIAL HANDBOOK advantage has been taken of the opportunity to make a number of factual changes throughout the volume.

THE PUBLISHERS

EDITOR'S NOTE

A most pleasant part of the work of an Editor-in-Chief is to render thanks for the help received from his Contributing and Consulting Editors. I have had a most able Board, without whose support, criticism, and constructive suggestions it would have been impossible to carry through the editorial task. Practically everything in the Handbook has passed under other eyes in addition to my own, many parts of it having been read by several persons. Much of this constructive, critical reviewing has in its thoroughness and care gone incredibly beyond what could be reasonably expected of men already under heavy pressures on their energy and time. I can but express my grateful appreciation for their contributions to the reliability and accuracy of every Section in the Handbook.

To those Editors who have taken the major burden in preparing certain Sections of the Handbook, I wish to make particular acknowledgment of their contribution of authorship. The list is as follows:

E. Sherman Adams.....Money, Credit and Banking, United States Government Obligations
William L. Bennett.....Trusts and Agencies
Lloyd E. Dewey.....Corporate Stock, Forms of Business Organization, Promotion
Meyer M. Goldstein....Pension and Profit-Sharing Plans
Bernard B. Greidinger..Financial Reports and Analysis
Sipa Heller .....International Banking
Paul L. Howell.....Securities Markets
Arnold R. La Force ....Bond Financing and Borrowing, Intercorporate Relations, Recapitalizations and Readjustments
Joseph M. Landow.....Financial Planning, Fixed Capital
Theodore Lang .....Mathematics of Finance
Heinz Luedicke .....Commodity Trading, Government Financing Agencies
Douglas E. Mathewson..Negotiable Instruments
Marcus Nadler .....Interest Rates
Raymond Rodgers .....Banking Procedure
David Saperstein .....Security Selling

Michael Schiff .....Working Capital
William H. Steiner.....Savings Institutions

There is also a debt to be acknowledged to the many associates in the business world and to the companies who have contributed material and helpful suggestions during preparation of the Handbook. The number is legion, and my appreciation most heartfelt and sincere.

The final editorial responsibility for shortcomings or errors must be my own. I shall be grateful for any suggestions leading to their elimination.

J. I. B.

CONTENTS

SECTION		PAGE
1.	SECURITY SELLING	1
2.	SECURITIES MARKETS	63
3.	INTEREST RATES	139
4.	UNITED STATES GOVERNMENT OBLIGATIONS	173
5.	FINANCIAL REPORTS AND ANALYSIS	199
6.	SECURITY ANALYSIS	261
7.	SAVINGS INSTITUTIONS	305
8.	PROMOTION	347
9.	FORMS OF BUSINESS ORGANIZATION	367
10.	CORPORATE STOCK	405
11.	BOND FINANCING AND BORROWING	457
12.	MONEY, CREDIT AND BANKING	527
13.	BANKING PROCEDURE	569
14.	TRUSTS AND AGENCIES	607
15.	INTERNATIONAL BANKING	635
16.	FINANCIAL PLANNING	667
17.	WORKING CAPITAL	707
18.	FIXED CAPITAL	739
19.	DIVIDENDS AND SURPLUS	779
20.	INTERCORPORATE RELATIONS	827
21.	RECAPITALIZATIONS AND READJUSTMENTS	891
22.	REORGANIZATIONS AND BANKRUPTCY	927
23.	PENSION AND PROFIT-SHARING PLANS	981
24.	NEGOTIABLE INSTRUMENTS	1039
25.	COMMODITY TRADING	1097
26.	MATHEMATICS OF FINANCE	1147
27.	GOVERNMENT FINANCING AGENCIES	1243
	INDEX	1275

FINANCIAL HANDBOOK

SECTION 1

SECURITY SELLING

CONTENTS

PAGE

The Demand for Capital

Need for investment funds..... 3
Factors influencing the demand..... 3

The Supply of Capital

Sources of supply 4

Special Problems of Small Enterprises

Difficulty of obtaining capital..... 5
Alternative methods of financing.... 6

Classes of Security Buyers

Adaptation of securities to buyers.. 7
Institutional buyers 7
Individual buyers 8
Investors and speculators..... 8
Special groups 9

Investment Banking

Nature of investment banking..... 10
Investment banker, issuer and investor 10
Classes of investment bankers..... 12
Internal organization of an investment banking house 13

Purchase of New Issues

Importance of sound purchasing policies 13
Sources of new financing proposals.. 14
Preexisting relations with issuers.. 14
Finders 14
Traveling representatives and branch officers 14
Commercial banks 14
Other investment banking houses.. 15
Direct applications 15
Competitive bidding 15
Investigation of financing proposals.. 16
The underwriting contract..... 17
Description of issue 18
Warranties by issuer 19
Agreement to purchase and sell.... 19
Price of securities and underwriting commissions 19
Public offering 19
Expenses 20
Copies of prospectus 20

PAGE

The underwriting contract—*Continued*
Indemnity provisions 20
Conditions to obligation of underwriters 20
Stop order 21
Balance sheets and earnings statements 21
Miscellaneous 21
The purchase group 21
The purchase group contract..... 23
Confirmation of agreement to purchase 23
Authorization to contract with issuer 23
Authorization to act as agent and manager 23
Payment of purchase price 23
Authorization to arrange loans..... 23
Authorization of stabilizing transactions 23
Disposition of securities repurchased in open market..... 24
Disposition of unsold securities... 24
Expenses 24
Termination 24
Cancellation of commitment by underwriter 24
Further powers of the manager 24
Approval of registration statement, prospectus and selling group agreement 25
Nature of obligations under agreement 25
Stand-by underwriting 25
Pricing of issues and compensation of underwriters 26
Carrying security issues 27

Sale of New Issues

The selling problem 28
The sales department 29
The selling group 29
The selling group agreement..... 32
Description of issue and underwriting arrangements 32
Sale of part of issue to dealers.... 32
Offer of specified amount and method of acceptance..... 33
Offer of securities by dealer..... 33
Restriction on resale price..... 33
Payment for securities 33

PAGE

The selling group agreement—*Continued*
Selling group discount 33
Remedies for default in payment.. 33
Advertisement of securities..... 34
Registration statement and prospectus 34
Blue sky laws 34
Termination of selling group..... 34
Authority of manager 34
The "red herring prospectus"..... 35
The public offering 36
Syndicate abuses 37
Price-cutting 37
The Public Service Company of Indiana case 38
"Beating the gun" 40
Security salesmen 41

Market Stabilization

Mechanics of stabilizing 42
Arguments against stabilizing 43
Arguments for stabilizing 43
Legal restrictions on stabilizing..... 44
Other market activities 45

Statistical and Advisory Activities

In general 46

PAGE

Accounting and Record-Keeping

In general 46

The Securities Act of 1933

Purposes of the act..... 47
Definitions 48
Registration procedure 50
The prospectus 52
Exempted securities 54
Exempted transactions 55
Transactions by persons other than issuers, underwriters and dealers 55
Private offerings 55
Transactions by dealers 56
Brokers' transactions 56
Sanctions 56

Blue Sky Laws

Historical background 58
Types of blue sky laws..... 59
Registration or licensing of dealers, brokers and other distributors.. 59
Registration of securities 60
Anti-fraud laws 61
Exemptions under blue sky laws..... 61
Sanctions under blue sky laws..... 62

SECTION 1

SECURITY SELLING

The Demand for Capital

NEED FOR INVESTMENT FUNDS.—Investment or capital funds are essential to the establishment, maintenance, and expansion of modern industry. Such funds are most frequently required (1) to finance the acquisition, replacement or expansion of plant, machinery, and other capital assets; (2) to finance the acquisition of control over other businesses; and (3) to refund maturing long-term indebtedness. At any stage in the development of an enterprise, a need may arise for more capital.

Investment funds are ordinarily utilized for the acquisition of capital or production goods rather than consumer goods. True investment involves, on the one side, the commitment of funds to the managers of the enterprise, and, on the other, an agreement to return the funds at a specified date or upon the liquidation of the enterprise, with interim payments for their use in the form of interest or dividends. Hence, the funds committed should be used not for consumption but for the production and distribution of goods and services which can be sold at a profit sufficient, at least, to pay such interest or dividends. Unless an enterprise is in a position to utilize investment funds to acquire profit-producing assets, it has no genuine economic need for such funds.

Investment funds, as their designation implies, are normally sought on a long-term basis. In this respect they differ from funds obtained through commercial borrowing. Commercial loans from banks are deemed more suitable to finance seasonal or short-term working capital requirements than for investment in fixed, long-term assets. Under ordinary circumstances, where fixed assets are to be acquired, the enterprise will seek investment funds. A demand for such funds may arise also when permanent working capital is required or when commercial loans, originally designed to be retired within a brief period, become more or less permanent in character, and the borrower desires to eliminate chronic reliance upon short-term borrowing.

FACTORS INFLUENCING THE DEMAND.—The intensity of the demand for investment funds varies from time to time. It is profoundly influenced by economic conditions. The demand is intensified by such factors as the opening up of new industries, inventions and improvements, harmonious relations between capital and labor, harmonious relations between government and industry, active new corporate promotions and cyclical upswings in business. Conversely, it tends to diminish during periods of business stagnation or depression, falling

prices, protracted labor disputes, confusion or uncertainty in governmental policies, strained international relations, and lack of initiative on the part of corporate promoters and investment bankers. Government financing may add largely to the demand for capital at certain times.

Demand for capital is also affected by conditions in individual enterprises. A going concern may possess alternative methods of financing the acquisition of capital assets. Capital assets which have outlived their usefulness may be replaced in whole or in part through depreciation reserves. Expansion may be financed through reinvested earnings. Funds for capital purposes are sometimes obtained through liquidation of excess inventories or marketable securities.

A further factor influencing the demand for investment funds is their cost. An enterprise confronted with a need for more capital may be unwilling to pay too high a price for it. During periods of high securities prices and low yields, the demand for investment funds tends to be stimulated by the comparatively low cost of obtaining them. But in periods of declining securities prices and high yields, the increased cost may prove a deterrent to this type of financing and managements may prefer to finance through commercial bank borrowing or reinvested earnings.

These and other factors cause wide fluctuations in the private demand for investment funds. Theoretically, such demand should be limited to the funds required for the production and distribution of useful goods and services which can be distributed at a profit. In practice, demands for capital are distorted by errors in judgment, unexpected inventions, overproduction of goods, and similar contingencies. It is a basic function of the capital market to equate demands for investment funds and the supply.

The Supply of Capital

SOURCES OF SUPPLY.—The supply of investment funds flows chiefly from the savings of the community. Persons who refrain from consuming all their income are the main suppliers of investment capital. The supply of capital thus is affected in large measure by national habits in regard to the accumulation and use of savings. Current savings can be supplemented with funds borrowed from banks, expansion of bank credit playing a role similar to savings.

The direction in which savings are invested will be influenced by the relative attractiveness of available opportunities and the initiative of the investment banking machinery of the nation in bringing such opportunities home to potential investors. In the United States, where a considerable segment of the population and many financial and business enterprises normally have a surplus of income for investment, where attractive opportunities are plentiful, and where the investment banking organization has achieved a high degree of development, there is a continuous movement of savings into new investments via the capital markets.

Only a part of the accumulated savings of the community is invested in securities. A portion of current savings flows directly into the purchase of real estate, the construction of homes, individual mortgage

loans, life insurance policies, and other forms of investment not involving the securities markets. A portion is invested directly by the owners in their own, closely held businesses. A portion takes the form of bank deposits or currency, pending determination as to the use to which it will ultimately be put by the owners.

Furthermore, that portion of community savings which is available for investment cannot always be profitably absorbed by industry. Periods occur in which the supply of investment funds exceeds the demand. During such periods persons in possession of surplus funds may have difficulty in finding a satisfactory outlet in the capital markets.

For the investor, selecting securities involves the application of certain standards and an appraisal of the extent to which the securities offered comply with such standards. Qualities most commonly sought in an investment are safety of principal, stability of income, adequacy of return, and liquidity or marketability. Somewhat less commonly, emphasis is placed upon possible appreciation in value, tax position, freedom from care, duration of the investment and other factors. Obviously, the qualities deemed most desirable are not present in equal degree in every investment. Nor can it be expected that any single investment will possess all the desirable qualities. But where a security does not comply with the standards adopted by investors for their own guidance, and where the return offered does not include adequate compensation for the hazards to be assumed, investment funds may not be forthcoming to meet a particular demand.

Special Problems of Small Enterprises

DIFFICULTY OF OBTAINING CAPITAL.—Small businesses seeking capital are often confronted with difficulties which the larger and better known companies do not share. Investors are hesitant to entrust their savings to companies of minor size. High selling cost per dollar raised deters many investment banking firms from selling security issues for such companies.

Reluctance of investors to purchase securities of small enterprises is attributable to several causes. Firstly, the average investor, in choosing an investment medium, inclines toward a business of which he has some previous knowledge. Where a corporation is national in scope, where its products are well known to the public, and where information concerning its operations is obtainable from financial manuals and other available sources, its securities will be accepted by investors more readily than the securities of a concern known only in its immediate locality. Secondly, an important consideration in the mind of the average investor is marketability. Wide distribution and a large number of security holders are essential to a broad market, and these are not afforded by securities of a small corporation. Thirdly, a small company may be quite vulnerable to unexpected happenings, technological changes, competitive conditions, and seasonal and cyclical factors. A seasoned enterprise of substantial size with strong banking connections, adequate reserves, and extensive technical resources is better equipped to meet emergencies than one which has not achieved its full measure of growth. Hence, the average investor prefers the large company as offering a more stable vehicle for investment.

Notwithstanding these handicaps, a small enterprise can secure access to investment funds through the securities markets, when its own condition and general market conditions are favorable. Where a company offers unusual promise of future expansion by reason of the fact that it has developed a new process or product, has established itself in a vigorous new industry, has acquired valuable patents or has otherwise given promise of growth, an investment banking firm may be willing to make an offering of securities on its behalf. Two major considerations may prompt the investment banking firm to undertake the financing under such circumstances, namely: its belief that the general prejudice of investors against the securities of small companies can be overcome by emphasis upon the favorable prospects in the particular case; and its expectation that the handling of a small issue will pave the way to large-scale financing at a later date.

Exemption under certain conditions from the registration requirements of the Securities Act of 1933, and the desire of investors for long-term capital gains, have to some extent facilitated new financing by smaller concerns in recent years.

ALTERNATIVE METHODS OF FINANCING.—Several courses are open to small corporations as alternatives to marketing securities through investment banking channels. First, there is the private offering. A company may be in position to attract capital from sources close to the management. Friends, business associates, and others having special knowledge of the business and the management may be receptive to an invitation to invest in the enterprise, particularly where they are offered a participation in the equity on favorable terms. Employees may have sufficient confidence in the business to be willing to purchase securities outright or on an instalment basis. Creditors and customers may be agreeable to the purchase of senior securities in order to cement trade relations. The company's lawyers and accountants may be successful in placing its securities with clients willing to forego marketability in return for a higher yield.

A private offering of securities is not subject to the requirements of the Securities Act of 1933, but it should be borne in mind that an offering must be within certain limits in order to qualify as a private offering. These limits are considered below under Private Offerings.

Again, a smaller corporation may find it feasible to make a direct public offering of its securities in its own and neighboring communities. Such an offering may be made through the officers and employees of the company or through salesmen hired on a commission basis to sell the issue. The salesmen may utilize their own lists of prospective investors or may be furnished with lists by the management. Their personal solicitations may be facilitated by newspaper, magazine, and radio advertising, and may be supplemented by a direct-mail campaign.

Where public offering is made, compliance with the Securities Act of 1933 and the applicable blue sky laws is essential. Under the Securities Act of 1933 an offering is exempt from all except the fraud provisions of the Act if the securities are sold only to residents of the state in which the issuer is incorporated and is doing business. The exemption is defeated, however, if any part of the issue is sold or offered to nonresidents. An exemption from the registration and prospectus requirements of the Act is also afforded to securities where the aggregate offer-

ing price does not exceed $300,000; but this exemption is conditioned upon compliance with regulations prescribed by the Securities and Exchange Commission. While these exemptions are designed to simplify the problems of the small corporation in obtaining investment funds, the necessity for strict adherence to their terms should not be overlooked.

Direct public offerings by issuers of their own securities may prove unsatisfactory for several reasons. A certain amount of suspicion may attach to such offerings because doubtful or fraudulent issues have been sold by this method in the past. The cost of this type of financing is often relatively high, ranging up to 25% and more of the proceeds. Receipt of the proceeds is slow and uncertain, particularly where it is necessary to allow purchasers to make payments in instalments. Distribution is often of poor quality, since sophisticated investors will not generally purchase securities which have not been subjected to scrutiny by a reputable investment banking firm. Finally, when officers and employees are called upon to solicit subscriptions they are diverted from their normal duties and the operating efficiency of the business is impaired.

Classes of Security Buyers

ADAPTATION OF SECURITIES TO BUYERS.—Successful offerings of securities require a recognition of the several classes of security buyers. Certain types of securities are suitable for one class and entirely unsuitable for another. In seeking capital for an enterprise, management and the investment banker must keep clearly in mind the necessity of adapting the security to the needs and desires of the class of buyers to which it is to be offered. Such buyers fall into the groups described below.

INSTITUTIONAL BUYERS.—Institutional buyers of securities include organizations formed primarily to invest in securities, and those formed primarily for other purposes but which have large sums for investment. Certain types of institutions make investments for their own account and risk; other types make investments for the account and risk of others. In either case the institutional buyer, in selecting investments, is subject to restrictions imposed by law, tradition or its own peculiar requirements.

Three major types of institutions have been developed in this country to gather together and invest the savings of great numbers of small investors. These are the savings bank, which receives deposits and invests them in high-grade bonds and mortgages under rigid legal restrictions; the trust company, which manages the funds of others and makes investments on their behalf; and financial organizations, such as the investment company, the mortgage bank, and the savings and loan association, which sell their own securities to the public and invest the proceeds within the limits prescribed by their charters.

There are three principal classes of institutions which purchase securities in large volume as an incident to other functions. Largest of these are the insurance companies, which, in the course of their primary business, accumulate reserves on so vast a scale that they have become major investors in high-grade securities. A second class are the commer-

cial banks, which invest part of their deposits in bonds and mortgages. A third class includes educational, religious, and charitable institutions, which together constitute important buyers of securities. While investing activities of insurance companies and commercial banks are subject to fairly stringent legal restrictions, the investment policies of educational, religious, and charitable institutions are largely free from such restrictions and are determined by the donors of property or by the trustees of the institutions.

INDIVIDUAL BUYERS.—Individual buyers of securities include those persons who utilize surplus income to purchase securities, as distinguished from those who place their savings with financial institutions which, in turn, invest in securities. There may be included in the category of individual investors firms and corporations which invest surplus funds in securities, instead of keeping such funds on deposit in banks.

The individual who has accumulated surplus funds is confronted, at the outset, with the necessity of deciding whether he will select his own investments or relinquish this function to an institutional investor. In the former case, he may purchase newly issued securities being distributed by an underwriting group; he may exercise rights to subscribe for additional shares in an enterprise in which he already has an interest; or he may purchase from others previously issued and outstanding securities. Whether he makes his own selection of investments or has an institution do so, the ultimate effect is to incorporate his savings into the main stream of investment funds flowing into the capital market. But the decision to invest directly or through an institution has an important bearing upon the types of securities which will be purchased. The individual investor is free to buy any security, from bonds of the highest grade to the most speculative equities. The institutional buyer, on the other hand, is limited in its choice of investments. Banks and insurance companies are restricted to the purchase of higher-grade investment securities. Even investment companies, less confined in the scope of their investment activities, must operate within the limitations of their charters or of policies adopted by their managements. Institutional investors have become, therefore, principal buyers of high-grade bonds, while individual investors are the chief market for equity securities.

Investors and Speculators.—Individual buyers of securities may be classified roughly as investors or speculators. From the standpoint of the capital market, all commitments of funds for capital purposes may be deemed investments. From the standpoint of the buyer, however, "investment" may be defined as the purchase of securities with the intention of avoiding substantial risk. The investor is primarily concerned with safety of principal and stability of income. "Speculation" may be defined as the conscious assumption of risk to secure a profit expected to result from the favorable outcome of the enterprise in which the risk is assumed. The emphasis in the calculations of the speculator is upon enhancement in value and profitable resale.

Variations in the two basic types of securities—the bond and the share of stock—have been devised to attract funds of investors and speculators. Sales appeal has been increased on occasion by combining

in a single security the investment features of a bond and the speculative features of a stock. The devices employed include:

1. The convertible bond, which entitles the holder to convert his bond into shares of stock at a predetermined conversion rate; and the convertible preferred stock, which entitles the holder to convert preferred shares into common at a predetermined rate.
2. The grant of a common stock bonus to the purchasers of bonds or preferred stock.
3. The grant of option warrants to purchasers of bonds or preferred stock, entitling the holder to purchase common stock within a fixed time at a specified price.
4. The sale of units consisting of a senior security and common stock, at a fixed price per unit.
5. The grant to a senior security of a participation with the common stock in earnings of the enterprise, in addition to the fixed rate of return.

Special Groups.—Included in the category of individual buyers of securities are three special groups having preexisting relationships with the issuers. These are stockholders, employees, and customers of the enterprise.

Stockholders frequently have a right under state corporation laws or under charter provisions to subscribe to additional issues of stock offered for sale by a corporation, before they are offered to others. This **preemptive right** is designed to permit the stockholder to maintain his proportionate interest in the corporate assets, earnings, and voting power. Some corporation laws provide, however, that the stockholder shall have no preemptive right unless specifically granted by the charter, or that he may be deprived of this right by provisions of the charter. Even where the legal preemptive right does not exist, an issuer may, as a matter of policy, grant to existing stockholders the right to subscribe to a new issue of stock. The price at which subscription rights may be exercised is usually below the prevailing market price. Subscription rights are generally transferable, so that a stockholder who prefers not to exercise the privilege may sell his rights to others.

Securities are sometimes offered to the employees of an issuer with the objective of promoting loyalty, decreasing labor turnover, and improving efficiency. Employees are usually offered stock on favorable terms or with extra benefits not enjoyed by other stockholders, such as additional annual payments over and above the dividends paid while they continue to be employed. Experience shows that during periods of drastic deflation, the decline in the market price of an issuer's securities may engender ill will among employee stock purchasers. For this reason, employee stock sales have become less common, and senior securities are favored for this purpose.

Customer ownership is designed to secure goodwill for an enterprise among buyers of its goods and services. The sale of securities to customers has been especially favored in the past by public utilities. A consumer who is also a shareholder is likely to be more critical of rate reduction agitation or adverse legislation directed against public utilities. Manufacturers have sometimes sought to expand sales by selling stock to wholesale and retail distributors, thus giving the latter a direct interest in the business. Some enterprises unable to raise capital elsewhere have sold securities to customers requiring their output, or to suppliers desiring to see their customer remain in business.

Investment Banking

NATURE OF INVESTMENT BANKING.—The investment banker is the intermediary between the issuer of securities and the investing public. His primary function is the purchase of whole issues of securities from public bodies or corporate issuers and their distribution to institutional and individual investors. A secondary function is the distribution of blocks of outstanding securities from large holders to the investing public.

New capital for corporations and governments is obtained in large volume through investment bankers. The bulk of new bond issues, except United States government obligations, is distributed through them. Investment banking firms are often referred to as "bond houses" because their activities at one time centered around bonds. During the decade following the end of World War I, however, there was a marked increase in financing by means of stock issues, and it has since become common practice for these houses to engage in the distribution of stock issues as well. Investment bankers may underwrite the sale of stock to existing stockholders through subscription rights. In such case, the investment bankers take up and distribute the unsubscribed portion of the issue.

The functions of the investment banking houses are different from those of the securities exchanges. The exchanges facilitate transfer of ownership after the investment banker has originated an issue of securities and distributed it to the investing public. But the main burden of supplying new capital rests upon investment bankers in the first instance.

INVESTMENT BANKER, ISSUER AND INVESTOR.—In relation to the issuer, the investment banker often assumes greater responsibilities than are involved in the mere purchase of securities for resale. He may act as financial adviser, passing upon such questions as the type of security to be offered, the collateral to be furnished, the timing of the offering, etc. Through stock ownership or representation on the board of directors, he may participate in the management of the issuer. His relation to the issuer, once established, is usually respected by other investment bankers.

As respects the investing public, the investment banker also takes a position involving more responsibility than that of the ordinary merchant. The sponsor of an issue is presumably in a superior position to appraise its merits. The name of an important banking firm attached to a prospectus is a potent factor in inducing the public to invest in the security. The public assumes that a reputable firm will not lend its name to a piece of financing without adequate investigation and the exercise of informed judgment. Many banking houses recognize that in sponsoring an issue they assume a quasi-fiduciary relation toward the investing public, which survives the initial distribution and may endure as long as the security is outstanding.

The responsibilities which the investment banker assumes toward the issuer are sometimes difficult to reconcile with those which he assumes toward the investing public. The problem is further complicated by considerations of self interest—the natural desire of the investment banker to realize a profit. Prior to the 1920's reputable firms were fairly

successful in maintaining a reasonable balance between the interests of issuers, security buyers, and themselves. The 1920's witnessed a radical change in the public taste for securities. Common stocks replaced bonds as the popular medium of investment and were sold to individual buyers with far greater ease. Responding to popular taste during this period, many investment banking firms laid aside their conservative policies in the origination of new issues. Unsound and unseasoned securities were sponsored by reputable houses. Issues were originated without adequate investigation, without the application of proper standards of investment appraisal, and without the most elementary safeguards for the investor. Distribution was facilitated by the misstatement or concealment of material facts in the offering circulars and other selling literature. Purchasers of many issues marketed during this period suffered heavy losses, and public confidence in the investment banking machinery of the nation was impaired for several years thereafter.

For these widespread deviations from conservative investment banking practice various justifications have been offered. It has been urged that the fault lay with the investing public, that the public appetite for speculative securities was insatiable during the boom years, and that the investment banker, like other merchants, must stand ready to satisfy current demands if he is to remain in business. This argument leaves out of account the semi-fiduciary nature of the relationship existing between the investment banking house and its clients. The individual investor had, for many years, been accustomed to rely upon the superior judgment of the investment banker in the origination of issues. The fact that the public had developed an appetite for securities with a speculative flavor gave no grounds for the investment banker's abandonment of his traditional obligation to safeguard the investor from uneconomic financing. The inadequacy of the available supply of sound issues furnished no excuse for the marketing of unsound ones. Beyond this, it seems clear that the intensive and high-pressure selling methods which became daily routine played no small part in whetting the public appetite for speculative securities. The accelerated pace of investment banking operations precluded thorough study of new issues and the exercise of sound judgment as to their merits. Undue emphasis on speedy distribution imposed on the dealer and his customer the crippling handicap of either making a snap decision or forfeiting the opportunity of participating in the issue. Finally, it is evident that under no circumstances can the public appetite for securities, however avid, supply justification for the failure of a sponsoring firm to make full and fair disclosure concerning the issue.

The practices which prevailed in the investment banking business during the 20's laid the foundation for the passage of the Securities Act of 1933. The primary purpose of the Act is to require full disclosure of material facts in connection with the marketing of a security and to impose penalties for violations of that requirement. But the Act does not authorize any federal agency to pass judgment upon the merits of a security. The Securities and Exchange Commission, which administers the Act, neither approves nor disapproves a security, and it is a criminal offense for any person to make a representation to the contrary. Thus, the chief burden of appraising the soundness of a security continues to rest with the investment banker.

Unfortunately, even since the passage of the Act investment bankers have not always discharged this burden with due regard to the interests of investors. This is particularly true in relation to common stock financing. Prior to the relaxation of the standards applied to equity offerings, a reputable firm usually required, as a minimum, that the enterprise be well-established, that it show a record of earnings sufficient to justify the proposed issue price, that its financial and operating policies be consistent with the investors' interest, and that the compensation of management be reasonable. In recent years, and especially during periods when speculative fervor has been rampant, many investment bankers have shown a willingness to sponsor shares of poorly established or highly uncertain enterprises entirely on the basis of conjectural future earnings. Following the end of World War II, there was a recurrence of the ill-considered offerings of prior boom years, and once again a considerable segment of the investment banking industry exposed itself to the criticism of having sacrificed the welfare of the investor to opportunities for quick profits.

CLASSES OF INVESTMENT BANKERS.—On the basis of function, investment houses may be divided into three classes: (1) wholesalers; (2) combined wholesalers and large retailers; and (3) small retailers.

Firms may be found in each class which specialize in one or more specific types of securities. The tendency of a firm to specialize may originate in the fact that it has acquired special skill, knowledge, and experience in the handling of a particular type of security, such as municipal bonds or aviation securities; the fact that its clientele has a special interest in certain types of investment, such as securities sanctioned by law for institutional investment; or the fact that its relations with issuers are firmly intrenched in one field of enterprise. Specialization enables a firm to concentrate more intensively upon one group of securities and to gain a reputation for expert knowledge in its field. On the other hand, a specializing firm may be handicapped by inability to supply its clientele with a diversified list of issues or to keep its sales organization occupied continuously.

The term "wholesalers" is derived from the commodity markets and applies to firms engaged in the origination and purchase of new issues of securities. The wholesaler purchases new issues, usually in conjunction with other wholesalers, and markets them through retail groups. A wholesale firm may act as originator, in which case it negotiates with the issuer and heads the purchase group organized to underwrite the issue, or it may merely be a participant in the purchase group headed by the originating firm.

There are few exclusively wholesale investment houses in the United States. Most wholesalers combine their buying or originating activities with retail selling. The combined wholesale and retail houses purchase issues of securities and themselves account for the sale of substantial portions of the issues to institutional and individual investors.

Retailers obtain new securities to distribute either by joining a selling group, which undertakes distribution, or by purchasing from members of the selling group at a discount from the public offering price. This discount, usually fixed by the selling group agreement, varies from a

fraction of 1% to a larger amount, depending upon the quality of the issue, the state of the market, and other factors. Retailers operate chiefly through salesmen who make contact with institutional and individual investors, and who are compensated, directly or indirectly, in proportion to the volume of their sales.

INTERNAL ORGANIZATION OF AN INVESTMENT BANKING HOUSE.—There is considerable variance in the internal organization of investment banking houses. The typical firm combining the business of wholesaling and retailing is organized to carry on the following operations:

1. Purchase of new issues.
2. Sale of new issues.
3. Stabilizing and other market activities.
4. Statistical and advisory activities.
5. Accounting, record keeping, and miscellaneous.

Some houses are thoroughly departmentalized, with each department exercising its own separate and well-defined function. Thus, the functions of negotiating, investigating, buying, selling, trading, statistical analysis, accounting, record keeping, and general management may each be carried on by separate departments. In other houses, some of these functions may be combined in a single department or even in a single individual.

Each of the foregoing functions is discussed below.

Purchase of New Issues

IMPORTANCE OF SOUND PURCHASING POLICIES.—The origination of new issues is the major economic function of investment banking. Out of the assortment of financing proposals which are presented to the investment banker, he must choose those to be offered to the public. By virtue of this strategic position, he is a potent factor in determining the channels into which savings are directed.

The investment banker's purchasing policies are of vital importance to the investor. The average individual has a limited ability at best to investigate the merits of a new security. His chief reliance is upon the integrity, judgment, and reputation of the sponsoring banker. A recommendation for the purchase of a security made to investors by an investment banking house of standing is frequently all that is necessary to induce immediate absorption of a new issue. The confidence imposed in the investment banker by his clientele begets a responsibility on his part to exercise a high degree of care in the origination of issues.

From the viewpoint of the investment banker himself, adherence to sound purchasing policies is essential. His success in marketing securities is dependent upon public confidence to a greater degree than in most other businesses; and public confidence, in turn, depends upon the record of his past offerings. Where previous issues have been soundly conceived and have done well marketwise, the sale of subsequent issues is facilitated. Moreover, it is widely recognized in investment banking circles that an issue well bought is at least half sold. Prudence and forethought in origination bring ample returns in the form of increased receptivity on the part of the buying public.

SOURCES OF NEW FINANCING PROPOSALS.—New financing proposals reach investment bankers from a variety of sources. The most important of these are:

Preexisting Relations With Issuers.—As a rule, relations between an investment banking firm and an issuer are continuing in character. Once a firm has successfully distributed the securities of an issuer or has otherwise established itself as financial advisor to the issuer, the association tends to continue, except in cases where the sale of new issues must be effected by competitive bidding. Sometimes the relationship is informal and rests entirely upon mutual goodwill. Sometimes it is cemented through the ownership of a stock interest by the investment banking house or through the election to the issuer's board of directors of a representative of the banking house, although the latter course has been discouraged to some extent by the additional liability imposed on directors by the Securities Act of 1933. Less frequently it is formalized through an arrangement between the issuer and the banking house whereby the latter is granted a prior right to purchase future issues of the issuer during a specified period. It is customary among investment bankers to respect established connections of a firm with a particular issuer and to refrain from considering financing proposals received from such an issuer. Thus, preexisting relations between an issuer and an investment banking firm constitute an important potential source of new proposals for the financing of the issuer, its subsidiaries and affiliates.

Finders.—Many financing proposals are brought to the attention of investment banking firms by independent intermediaries, known as "finders." The finder establishes initial contact with the issuer and is expected to make a preliminary investigation before presenting a proposal. His compensation, usually paid by the investment banking house, may be a flat sum or a payment equivalent to a percentage of the underwriting profit. If option warrants are received by the underwriter, some may go to the finder.

Under the Securities Act of 1933, one who receives a finder's fee from the underwriter is not himself an underwriter if he does not participate directly or indirectly in the distribution of the issue. On the other hand, a finder may become an underwriter within the meaning of the Act if he undertakes for a consideration to perform functions ordinarily within the province of the underwriters, such as handling of negotiations looking toward the formation of a selling group.

Traveling Representatives and Branch Officers.—The services of the traveling representative of an investment banking firm are of special importance in connection with the origination of foreign issues. Like the finder, he is expected to contact the issuer and to conduct a preliminary investigation before submitting a proposal. The branch offices of an investment banking house bring to the attention of the buying department at the main office enterprises in their area which may be suitable prospects for financing.

Commercial Banks.—New financing prospects may be referred to an investment banking firm by friendly commercial banks. The commercial banker is often in a position to recommend the services of an investment banker to clients needing long-term capital rather than bank loans.

Other Investment Banking Houses.—A considerable volume of new issue business of every investment banking firm is derived from other banking houses. The channeling of business between investment banking houses is accomplished in two ways. In the first place, a firm known to specialize in a particular type of security will be called in by other firms when they are presented with a security of this type; and the specialist firm may be asked to head the purchasing syndicate formed in connection with the origination of the issue. In the second place, the great majority of investment banking houses obtain participations in new issues by joining with other houses in purchase and selling groups. The size of these participations depends upon the resources and standing of the respective participants and their previous relations with the originator of the business. Where a highly desirable issue is involved, the proportion allotted to a participant may be influenced by its success in distributing previous offerings originating from the same source.

Direct Applications.—New financing proposals reach investment banking houses through direct application by executives or other representatives of corporations. Where such applications pertain to enterprises unfamiliar to the investment banker, they may receive little consideration, although some firms maintain facilities for investigating such applications. Where a proposal is presented to an investment banking house, considerable time and expense may be involved in the preliminary investigation, so that it is deemed to be a breach of faith for the issuer to take the proposal elsewhere before it has been acted upon. The more widely a proposal is "shopped around," the more remote are its eventual chances of a favorable reception. Where direct application is made, it is helpful to have an accurate, concise, and readable outline of the proposal, with data on operations, past record, and management of the enterprise. A carefully prepared presentation naturally receives more attention than one that is prepared in haste and inadequately presents the facts.

Competitive Bidding.—While most types of issues are originated by direct negotiation between the investment banker and the issuer, competitive bidding has assumed importance in certain types. For many years, financing by states and municipalities has been regularly conducted on the basis of competitive bids. Competitive bidding has been required by the Interstate Commerce Commission in the sale of issues of railway equipment trust certificates since 1924, by the Treasury Department in disposing of weekly bill offerings, and by the Reconstruction Finance Corporation in the sale of some of its holdings.

Under authority of the Public Utility Holding Company Act of 1935, the Securities and Exchange Commission has required competitive bidding in the sale of new securities by registered public utility holding companies and their operating subsidiaries and in the sale of utility securities from holding company portfolios. Several categories of transactions are exempted by the Commission from this competitive bidding requirement, including the issuance of securities pro rata to existing security holders pursuant to any preemptive right or privilege or in connection with any liquidation or reorganization; the issuance of securities having a maturity of not more than 10 years to financial institutions, where the securities are not to be resold to the public and where

no finder's fee is paid to any third person; the issuance of securities to a registered holding company or subsidiary whose acquisition thereof has been approved by the Commission as tending toward the economical and efficient development of an integrated public utility system; transactions in which the issuer or vendor will realize less than $1,000,000; and other transactions as to which the Commission finds that compliance with the competitive bidding requirement is unnecessary.

The wisdom of the competitive bidding method of financing has been the subject of argument for some years. Its advocates contend that the terms, including the consideration to be received by the issuer and the fees and commissions of the bankers, are more likely to be reasonable and fair if competitive bidding is required; that termination of the exclusive relationship existing between an issuer and its investment banker attracts the attention of other firms and results in wider distribution of the issuer's securities; and that, in general, the interests of investors are better served by the elimination of investment banker domination of issuers.

Opponents of competitive bidding argue that it destroys the incentive of bankers to support the credit of an issuer, since such incentive exists only where the issuer-underwriter relationship is continuous; that in the heat of competition excessive prices may be bid for securities, resulting in ultimate loss to both investment bankers and their clients; that in periods of depression no competitive bids may be forthcoming; that the establishment of permanent financing channels cuts the cost of distribution and thus tends to lower the issue price to the public; that the stronger investment banking houses tend to restrict their activities to business they are assured of obtaining, leaving to weaker firms issues available for competitive bidding; and that investigation is less complete.

Competitive bidding is firmly established in state and municipal financing, where tax exemption, standardization, and financial stability render continuous banking connections of relatively minor importance. In the corporate field, competitive bidding appears suitable mainly for issues of a standardized character for which complete statistical and other data are readily available to all interested investment bankers.

INVESTIGATION OF FINANCING PROPOSALS.—The investigation of a new financing proposal is conducted by the buying department of the originating firm, with such assistance from outside experts as it may require. The extent of this investigation varies. The bonds of a large municipality require less investigation than those of a small community. In the case of a corporate security issue, the problem is far more complicated, although the difficulties are relieved to some extent where requisite information is already in the possession of the banking house by reason of prior relations with the issuer.

The inquiry may be made in two stages. The first stage comprises a quick preliminary study of the industry in which the issuer operates, its position in the industry, and such other statistical data as are readily available. On the basis of this survey, members of the investment banking firm determine whether the proposal holds sufficient interest to warrant a complete investigation. If the decision is favorable, it is advisable for the firm to have a clear understanding with the issuer that the proposal will not be taken elsewhere while a more extended investigation is in progress.

The second stage of the investigation is far more comprehensive than the first. It ordinarily includes a general examination of the affairs of the corporation conducted by the buying department; and engineering, legal, and auditing examinations conducted by experts retained by the firm.

The general examination of the issuer covers such factors as ownership and management; credit position; property and products; pricing policies; competitive position; labor relations and general labor conditions in the area of operations; availability of sources of supply of raw materials; public relations; and the financial statements.

The engineering examination may cover a description of the products; a valuation of property, tangible and intangible; the physical condition, operating efficiency, and accessibility of properties; the issuer's policies with respect to additions, improvements, and maintenance; present and potential sources of competition; relationship between management and employees; analysis of the issuer's earnings and operating costs as compared with those of other companies in the industry; and the issuer's probable requirements for future improvements.

The legal examination relates to such questions as the legality of the issuer's organization; its authorization to do business in the states in which it is operating; the scope of its permissible activities under the articles of incorporation; title to and incumbrances upon properties, leaseholds and franchises; the validity of the proposed issue; and the problems to be encountered in registration under the Securities Act of 1933 and in qualifying under the blue sky laws.

The auditing examination supplies comparative earning statements and balance sheets for several years; comparative statements of charges to maintenance and depreciation; a review of the internal accounting system and its adequacy; and a detailed audit of accounts.

THE UNDERWRITING CONTRACT.—Upon completion of the investigation, the members of the originating firm supervising the activities of the buying department make a final decision as to the firm's willingness to handle the business. If the decision is in the affirmative, an offer of purchase is made to the issuer, and upon the acceptance of the offer, the terms agreed upon are embodied in an underwriting contract, usually in the form of a letter from the underwriters to the issuer or from the issuer to the underwriters.

Execution of the underwriting contract by the issuer must be authorized by appropriate corporate action. In some instances, the issuer's board of directors has sufficient authority to enter into the contract without action by the stockholders. Where a charter change is involved or stockholder approval is required for other reasons, a meeting of shareholders must be called. The steps necessary for the validation of an underwriting contract are governed by the law of incorporation, the charter, and the by-laws of the issuer.

Before the passage of the Securities Act of 1933, the originating firm usually acted alone in the execution of the underwriting contract, reserving the formation of the purchase group until after the contract had been executed. Since the passage of the Act, the more usual course is for the originating firm to obtain from all the members of the purchase group authorization to execute the contract on their behalf. Under this procedure the formation of the purchase group precedes the signing of the underwriting contract.

Originally, an underwriting commitment was an agreement to take up the unsold portion of a security issue which was to be offered, in the first instance, to others. The term has been extended, however, to designate various methods of guaranteeing or facilitating the flotation of a security issue, whether or not a financial obligation is imposed on the underwriters. The underwriting commitment may take any of the following forms: (1) an agreement by the underwriters to purchase the entire issue outright and to resell it to the public; (2) an agreement by the underwriters to purchase and distribute publicly any portion of the issue not absorbed by existing security holders; or (3) an agreement by the underwriters to use their best efforts to sell the issue publicly, coupled with an authorization to act as selling agents of the issuer or an option to purchase the issue. Agreements in the first two categories impose upon the underwriters a binding financial obligation to take up the whole or a part of the issue and are known as "firm commitments." Agreements in the third category impose no binding financial obligation upon the underwriters and are known as "best efforts commitments."

Most underwriting contracts prior to enactment of the Securities Act of 1933 provided for a firm commitment by the underwriters which guaranteed to the issuer receipt of the entire net proceeds of the financing, except upon the happening of certain remote and catastrophic events. With the introduction of the 20-day waiting period prescribed by the Act, investment banking firms have tended to veer away from the firm commitment in the strict sense of the term. It is no longer uncommon for the underwriting of a stock issue to take the form of a best efforts commitment, which does not bind the underwriters to purchase any part of the issue but merely requires them to use reasonable efforts to sell the securities to others. Even where the underwriting assumes the outward form of a firm commitment, as it usually does in the case of a bond issue, the contract may include a provision permitting the underwriters to cancel their obligations upon the happening of contingencies so broad in scope as virtually to vitiate the firm nature of the commitment. The contingencies usually specified as grounds for cancellation include any substantial change, prior to the public offering, in the position of the issuer or its subsidiaries or in political, economic, or market conditions, which, in the judgment of the underwriters, would render it impracticable or inadvisable to market the security. In extreme cases, it is provided that the underwriters may withdraw from their commitment upon the happening of any such contingency even after the date of the public offering.

The following summary sets forth the elements of an underwriting contract involving a firm commitment. It is illustrative only and does not purport to be complete, additional provisions being necessary to adapt the contract to the circumstances of the individual case.

1. **Description of Issue.**—The securities to be issued are fully described to avoid later controversies. In the case of a stock issue, the description should include, as a minimum, the number of shares, designation of the class, the par value, the rate of dividends if fixed, and whether a preference to dividends is cumulative or noncumulative. In the case of bonds, the description should include, at least, the full designation of the issue, the date which the bonds are to bear, the rate of interest, the date of maturity, and, if the issue is to mature serially, an indication of the

serial maturities. If the bonds are to be issued under an indenture, its date and the name of the trustee should be stated and a copy of the form of indenture should be attached to the underwriting contract.

2. **Warranties By Issuer.**—The issuer makes the following warranties:

a. That the issuer has prepared and will file with the Securities and Exchange Commission a registration statement and prospectus covering the securities to be offered, and will prepare and file all amendments thereto which may be required.
b. That when the registration statement becomes effective, the registration statement and prospectus will fully comply with the Securities Act of 1933 and will contain no untrue or misleading statement or omission of a material fact.
c. That the accountants who are to certify the financial statements to be filed as parts of the registration statement and prospectus will be independent public or certified accountants, as required by the Securities Act of 1933.
d. That the most recent available balance sheet (usually attached to the contract) fairly presents the capitalization, assets, liabilities, and net worth of the issuer at the date shown; and that the profit and loss statement (also attached) fairly presents the operating results of the issuer for the period indicated.
e. That no substantially adverse change in the condition of the issuer has occurred since the date of the most recent balance sheet, except in the ordinary course of business.
f. That there are no pending or threatened law suits against the issuer, except as specifically described.
g. That the entire net proceeds of the issue will be used for the purposes expressed in the registration statement and prospectus.
h. That the issuer will diligently endeavor, when requested by the underwriters, to qualify the securities for sale under the blue sky laws of any states which may be designated by the underwriters.

3. **Agreement to Purchase and Sell.**—The underwriters agree to purchase, and the issuer agrees to sell, the entire issue outright at a stipulated price. The obligations of the underwriters to purchase may be joint or several. A joint obligation imposes upon each underwriter liability for the entire issue, regardless of the percentage of his participation, while a several obligation limits the liability of each underwriter to the percentage of his participation. In current practice the several obligation is universally favored by investment banking firms, although the joint obligation is preferable from the issuer's standpoint. Where the obligation is several, as is now the case, the contract sets forth the amount and the percentage of the total which each underwriter agrees to purchase.

4. **Price of Securities and Underwriting Commissions.**—The price at which the securities are to be offered, the underwriting discounts or commissions, the net amount of the proceeds to be received by the issuer, and the method and time of payment and delivery are all clearly specified.

5. **Public Offering.**—The underwriters agree to make a public offering of the securities within a fixed period after the effective date of the registration statement at a designated public offering price. The underwriters are authorized to sell the whole or a portion of the issue to a selling group (in which the underwriters themselves may participate) at the public offering price less a specified commission.

6. **Expenses.**—The issuer agrees to pay all expenses, fees, and taxes in connection with the issuance and delivery of the securities to the underwriters, the preparation, printing, and filing of the registration statement and prospectus and any amendments or supplements thereto, and the qualification of the securities under the blue sky laws. The issuer further agrees to reimburse the underwriters for their out-of-pocket expenses in connection with the purchase of the issue and its qualification for sale in the various states, including the fees and disbursements of their counsel, but not in excess of a specified maximum amount.

7. **Copies of Prospectus.**—The issuer agrees to deliver to the underwriters, within a specified period before the effective date of the registration statement, as many copies of the prospectus in draft form as they may reasonably require for the purpose of giving information to members of the selling group, such copies to be clearly marked to indicate that they are to be used for information purposes only and are not to be considered as an offer of sale. The issuer further agrees to deliver to the underwriters, after the effective date of the registration statement, as many copies of the prospectus in final form as they may reasonably require for the purposes contemplated by the Securities Act of 1933. The issuer also agrees to deliver to the underwriters copies of any amendments or supplements proposed to be made in the registration statement or prospectus before or after the effective date of the registration statement.

8. **Indemnity Provisions.**—The issuer agrees to indemnify the underwriters against any liabilities under the Securities Act of 1933, or otherwise, arising out of or based upon any untrue or misleading statement or omission of a material fact in the registration statement or prospectus; except that the issuer does not indemnify the underwriters against liabilities arising from statements or omissions made in reliance upon information furnished by the underwriters to the issuer. Conversely, the underwriters agree to indemnify the issuer against any liabilities under the Securities Act of 1933, or otherwise, arising out of or based upon any untrue or misleading statement or omission of a material fact in the registration statement or prospectus, where the statement or omission was made in reliance upon information furnished by the underwriters.

9. **Conditions to Obligation of Underwriters.**—The obligation of the underwriters to purchase the issue is subject to the following conditions:

a. That at or prior to the date of purchase the underwriters shall receive the favorable opinions of their counsel and of the issuer's counsel with respect to (i) the incorporation and legal existence of the issuer; (ii) its authority to carry on business in those states in which it is operating; (iii) the titles to its properties, leaseholds, and franchises; (iv) the form and validity of the securities to be issued and the corporate proceedings incident to the authorization and issuance thereof; and (v) the form of the registration statement and prospectus and all amendments thereto.

b. That the registration statement shall become effective prior to a specified date and shall remain effective to the time of purchase, and that no stop order suspending its effectiveness shall have been issued or threatened by the Securities and Exchange Commission prior to the time of purchase.

c. That prior to the public offering, there shall be no substantially adverse change in the condition of the issuer, financial or otherwise, or in political, economic, or market conditions which would render it impracticable or inadvisable, in the sole judgment of the underwriters, to consummate the public offering. This provision is sometimes supplemented by a clause giving each underwriter the right to cancel his commitment in the event of the suspension of trading in securities on the New York Stock Exchange, the declaration of a general banking moratorium, the outbreak of war, or the occurrence of a national calamity.

10. **Stop Order.**—If a stop order suspending the effectiveness of the registration statement shall be entered by the Securities and Exchange Commission after the time of purchase, the issuer agrees to make every reasonable effort to obtain the lifting of such stop order and to pay any losses incurred by the underwriters on account of such stop order. It is generally provided, however, that the issuer will not be liable for the loss of the underwriters' anticipated profits.

11. **Balance Sheets and Earnings Statements.**—The issuer agrees, so long as the underwritten securities remain outstanding, to furnish the underwriters with certified balance sheets and earnings statements annually and with uncertified balance sheets and earnings statements at more frequent intervals.

12. **Miscellaneous.**—The contract may also include provision for the disposition of allotments which one or more of the underwriters may fail to take up; restrictions against the sale of securities by large existing holders for a specified period, usually several months, after the effective date of the registration statement; provision for the filing by the issuer of applications to list the securities on an exchange and to register them under the Securities Exchange Act of 1934; provision for election of one or more nominees of the underwriters to the issuer's board of directors; limitations upon the compensation of management; and provision for the appointment and maintenance of a transfer agent and registrar for the securities.

THE PURCHASE GROUP.—Where the issue is substantial in size, the originating firm will ordinarily invite other investment bankers to join with it in the underwriting. The group organized in this fashion is variously known as the "purchase group," the "purchase syndicate," and the "underwriting syndicate." While the creation of such a group by the originating firm involves a sharing of the underwriting profits, it provides compensating advantages, the most important of which are the spreading of the underwriting risks and the addition of distributing power.

Each step in the process of originating and distributing securities entails the assumption of a certain measure of risk and the aim of each middleman in the process is to pass the risk along as rapidly as possible until the securities come to rest in the hands of the ultimate investor. After an underwriting commitment has been made, a sudden change in the condition of the issuer or in general market conditions may necessitate an indefinite postponement of the public offering or, if the offering has commenced, may render it unsuccessful in whole or in part. The unsold securities must either be disposed of at a sacrifice or carried until conditions are more favorable for their disposal. The loss or

freezing of a firm's capital in an unsuccessful underwriting may interfere with its ability to take on other commitments and may jeopardize its solvency. Hence, an originating firm, to avoid the danger of excessive strain on its own financial resources, brings in other investment bankers who are willing to assume part of the risk.

Inclusion of other firms in an underwriting venture has the further advantage of increasing the distributing power behind the marketing effort. A combined wholesale and retail firm, with its own retail sales organization and its own individual and institutional clientele, is a valuable ally in the selling campaign. When several such firms join forces, the list of potential buyers of the issue is greatly expanded, facilities for reaching potential investors are strengthened, and the time required for distribution is reduced with a consequent diminution in the chance that adverse conditions may intervene to impede a successful offering.

The size of the purchase group ranges from as few as two members to upward of 100 in the case of very large issues. The originating firm acts as manager of the group, except when it is deemed advisable to substitute a better-known firm or one specializing in the particular tvpe of security involved. The manager is ordinarily authorized to represent each member of the group in the handling of all matters pertaining to the purchase, carrying, and distribution of the securities, including execution and closing of the underwriting contract, organization of the selling group, qualification of the securities for sale under blue sky laws, public offering, market stabilization, and other details. For these services the manager receives a stipulated compensation which is charged against the accounts of the several underwriters in proportion to their respective participations.

Under former practice, participations in the purchase group were either on a divided or an undivided basis. In a divided syndicate the liability of each member is limited to the amount of his participation, and upon termination of the syndicate he may be required to take up only the difference between the amount of his participation and the amount sold by him. In an undivided syndicate unsold securities are divided among members according to the percentage of their participations, regardless of the amount which each has distributed during the life of the syndicate. The divided syndicate is now in universal use.

The duration of the purchase group is generally fixed by the purchase group contract. Since the purchase group comprises the underwriters of the issue, it must be maintained at least during the life of the selling group and for as long thereafter as it is deemed necessary to support the market price. Where an issue is quickly and thoroughly absorbed and the market price remains at or above the public offering price, the purchase group may be dissolved in a relatively short time. Where the issue is "sticky" and it becomes necessary to repurchase a substantial amount of the securities in order to maintain the price, the life of the purchase group may be prolonged. A provision found in many purchase group contracts is that the purchase group shall terminate 30 days after the termination of the selling group, or on such earlier date as the manager may fix. This type of provision derives flexibility from the fact that the selling group agreement usually vests the manager with discretion to extend the life of the group for limited periods of time.

THE PURCHASE GROUP CONTRACT.—The purchase group contract is the agreement fixing the rights and liabilities of the underwriters among themselves. It usually takes the form of a letter addressed to the originating firm from the other members of the group. The following summary of a typical purchase group contract does not purport to be complete. As in the case of the underwriting contract previously summarized, circumstances of the individual case may necessitate the inclusion of other provisions.

1. **Confirmation of Agreement to Purchase.**—Each underwriter confirms his agreement with the originating firm to purchase his proportion of the securities from the issuer.

2. **Authorization to Contract with Issuer.**—Each underwriter authorizes the originating firm to enter into a contract with the issuer covering the purchase of the securities by the underwriters severally in the agreed proportions. (The proposed form of underwriting contract is usually attached to the purchase group contract.)

3. **Authorization to Act as Agent and Manager.**—Each underwriter authorizes the originating firm, as his agent, to act as manager of the public offering and of the selling group; to determine when the public offering shall be made; to select the firms to be included in the selling group and the amount to be allocated to each; to determine when the selling group shall be terminated; and to take all further actions which, in the judgment of the manager, may be necessary or advisable in connection with the underwriting contract, the public offering, and the selling group.

The manager is further authorized to sell the whole or a specified part of each underwriter's participation to the selling group or to outside dealers, at a concession from the public offering price. Any part of an underwriter's participation not sold in this manner may be offered by such underwriter at the public offering price. (The amount reserved for direct sale by the underwriter will, of course, vary with his distributing power.) Each underwriter agrees to comply with the terms of the selling group agreement, whether or not he becomes a member of the selling group. (The proposed form of selling group agreement is usually attached.)

As compensation for his services the manager is to receive a specified sum which is to be charged against the accounts of the several underwriters in proportion to their respective participation percentages.

4. **Payment of Purchase Price.**—Each underwriter agrees to pay to the manager, on the closing date of the underwriting contract, his proportionate share of the purchase price of the securities.

5. **Authorization to Arrange Loans.**—The manager is authorized to advance his own funds or to arrange loans for the account of each underwriter and to hold or pledge such underwriter's portion of the issue as security therefor, upon such terms as the manager may deem necessary or advisable to carry out the purchase of the issue and to effect its distribution.

6. **Authorization of Stabilizing Transactions.**—For the purpose of stabilizing the market price of the securities, the manager is authorized,

after the effective date of the registration statement and until the termination of the agreement, (1) to buy and sell securities in the open market, for either long or short account of the underwriters in proportion to their respective percentages of participation, subject to the requirements of the Securities and Exchange Commission applicable to such stabilizing transactions; and (2) to overallot to dealers in arranging for sales of the securities. This authorization is usually subject to the limitation that at no time shall the net long or short position of any of the underwriters resulting from such purchases and sales exceed a fixed percentage (ranging from 5% to 10%) of the total commitment of such underwriter. Each underwriter agrees, on demand, to take up at cost any securities so purchased for his account and to deliver any securities so sold for his account.

In order that no transaction which might be deemed to be a stabilizing transaction shall be effected by any underwriter other than the manager, each of the others agrees to refrain from buying or selling securities for his own account in the open market during the life of the purchase group.

7. **Disposition of Securities Repurchased in Open Market.**—If the manager shall repurchase in the open market any securities previously sold by an underwriter otherwise than through the manager, the manager may either require such underwriter to take up the securities at the cost of the open market purchase or charge such underwriter with an amount equal to the dealers' concession.

8. **Disposition of Unsold Securities.**—Each underwriter agrees, at the termination of the purchase group, to take up his share of the unsold portion of the issue on a divided basis.

9. **Expenses.**—All expenses incurred by the manager in connection with the purchase, carrying and sale of the securities shall be charged against the accounts of the several underwriters, including the manager, in proportion to their respective percentages of participation.

10. **Termination.**—The purchase group contract shall terminate 30 days after the termination of the selling group or on such earlier date as the manager may fix. Upon the termination of the contract the manager shall render an accounting to each underwriter of his final net profits or losses in proportion to his percentage of participation, and the accounts shall be settled and paid.

11. **Cancellation of Commitment by Underwriter.**—If any underwriter shall cancel his agreement with the issuer, his obligations under the purchase group contract shall cease except his obligation to pay his proportionate share of all expenses. No underwriter shall cancel his agreement with the issuer except after notice to all the others and with the consent of the underwriters agreeing to purchase more than 50% of the issue. Such consent, if given, shall not affect the obligation, if any, of the underwriter so cancelling to the issuer.

12. **Further Powers of the Manager.**—Each of the underwriters authorizes the manager to take such action as the manager may deem advisable in respect of all matters pertaining to the underwriting contract; and to take such steps as may be necessary to qualify the securi-

ties for sale under the blue sky laws of such states as may be designated by the manager. The manager, however, assumes no liability in respect of the value of the securities, the form or validity of the securities, the registration statement or prospectus, the performance by the issuer of any agreement on its part to be performed, or the qualification of the securities for sale under state laws.

13. **Approval of Registration Statement, Prospectus and Selling Group Agreement.**—Each underwriter confirms that he has examined the registration statement and prospectus and is willing to proceed with the offering of the securities in the manner contemplated therein and to accept the responsibility of an underwriter under the Securities Act of 1933. The manager, with the approval of the underwriters' counsel, is authorized to approve any amendments which may be made before the effective date and any amendments or supplements which may be made after the effective date. Each underwriter also confirms that the form of the selling group agreement is satisfactory.

14. **Nature of Obligations Under Agreement.**—Nothing in the contract shall constitute the several underwriters partners or under any joint obligation with the manager or each other, or shall render any underwriter liable for the obligations of any other underwriter. In acting for the underwriters, the manager's capacity is that of agent for each one of them separately and individually.

STAND-BY UNDERWRITING.—An underwriting, in the strict technical sense, is a commitment to take up the unsold portion of an issue which is to be offered, in the first instance, to others. This type of underwriting is now described as "stand-by" or "old-fashioned" or "pure" underwriting.

The most common stand-by underwriting occurs where an established corporation offers to its stockholders an additional issue of stock or of bonds convertible into stock, or where securities of a corporation are offered in exchange for its outstanding securities, under a plan of reorganization or recapitalization. In any such case an underwriting group may be formed to guarantee the disposal of the entire issue to be offered. Where the issue is to be offered for cash, the commitment of the underwriters obligates them to take up any portion which is not absorbed by existing holders of securities. Where the issue is to be offered in exchange for outstanding securities, the commitment obligates the underwriters to take up for cash any portion not accepted, and the issuer is thus enabled to pay cash to dissenting holders.

The definition of an "underwriter" contained in the Securities Act of 1933 is broad enough to include the stand-by underwriter as well as the underwriter who purchases an issue outright with a view to public distribution. In most instances, stand-by underwriters contemplate ultimate public distribution of the securities which they take up, and hence are clearly subject to the liabilities of the Act. It sometimes happens, however, that an investment trust or other investing institution will agree with the underwriters of an issue to purchase from them the portion remaining unsold after public offering, and to hold the securities so purchased for investment. An investing institution in this position may be designated as the "underwriter of the underwriters." Under a rule of the Securities and Exchange Commission, such an underwriter

is not subject to the liabilities imposed upon underwriters by the Securities Act of 1933 if certain conditions are met. The rule excludes from the definition of underwriter a person (1) who is not in privity of contract nor in a controlling relationship with the issuer; and (2) who has no association with the principal underwriter (in the sense that no controlling relationship or common management exists between them and that neither has a financial stake in the other); and (3) whose function is confined to an undertaking to purchase all or some specified proportion of the securities remaining unsold after the lapse of a specified period of time; and (4) who purchases such securities for investment and not with a view to distribution. (Rule 142 of the General Rules and Regulations under the Securities Act of 1933.)

PRICING OF ISSUES AND COMPENSATION OF UNDERWRITERS.—One function of the investment banker is to set the offering price of the issue and the cost of the financing to the issuer. In pricing the issue, the originating firm is guided by prevailing market conditions, by market quotations on other outstanding securities of the same issuer, and by market quotations on comparable securities of other issuers.

In the case of bonds, the most important factor to be considered is the yield or rate of return offered by comparable bonds, as reflected in prevailing market quotations. The yield is usually expressed in a percentage and is designed to reflect every pertinent factor, such as the safety, stability, and marketability of the bonds. The maturity date is largely governed by custom in the particular industry—ten to twenty years for ordinary industrial issues, and thirty to forty years for utility issues. Individual investors favor a price moderately below par, but institutional buyers readily purchase premium obligations if the yield is satisfactory.

The amount to be paid by the underwriters to the issuer is reduced by the underwriters' commission or "spread." Wide disparities exist in the spreads demanded by different underwriting firms. Some attempt has been made at the establishment of cost accounting principles as a basis for the determination of spreads; but thus far the progress in this direction has not been notable. Spreads vary with the size and type of the issue, the state of the market, and other factors. In the case of readily marketable investment issues, such as high-grade municipal bonds, the spread may be less than one point or one per cent of the face value of the issue. In the case of more speculative bond offerings, the spread may range between four and six per cent of the face value.

The pricing of new stock issues depends largely upon the underwriters' judgment as to what investors will pay in the light of all the circumstances prevailing at the time of the offering. The average spread in the case of stock issues is considerably larger than in the case of bond issues. The underwriting of an unseasoned stock issue, requiring an intensive selling campaign for successful placement, may command as much as 20% of the aggregate proceeds of the offering. A portion of the underwriters' compensation is sometimes paid in the form of stock or option warrants to purchase stock in the future at fixed or graduated prices. On occasion, payments in stock or warrants are made by controlling stockholders instead of the issuer itself.

Two methods are used in arranging the compensation of stand-by underwriters. The underwriters may receive a flat commission on the whole issue, regardless of the amount which they are required to take up; or they may receive a small rate of commission on the entire issue plus a higher rate on any portion which they take up. Thus, where 100,000 shares of stock are offered to stockholders, the underwriters' commission may be $1 per share on the entire issue and $2 additional for each share not subscribed for by stockholders. Where any substantial portion of the issue is taken up by the underwriters, the latter may proceed to organize a retail selling group to complete the distribution.

Members of the purchase group participate in the spread in proportion to their participations in the underwriting. In the event that they make sales in excess of their respective participations, they may be allowed an additional commission on such sales.

Under the Securities Act of 1933 full disclosure must be made in the registration statement and prospectus of all commissions or discounts (including cash, securities, contracts or anything else of value) to be paid, directly or indirectly, to the underwriters by the issuer or by any person in a controlling relationship with the issuer. [Securities Act of 1933, Schedule A, paragraph (17).]

CARRYING SECURITY ISSUES.—Various courses may be followed by underwriters in making payment of the purchase price to the issuer. The full amount may be paid on the signing of the purchase contract; a portion may be paid at that time and the balance at stated intervals thereafter; or the entire payment may be deferred for a sufficient period to afford the underwriters opportunity to dispose of the issue. A favored course is to provide for payment shortly before the selling group members are required to make payment to the purchase group. The commitment of the purchase group to the issuer may then be financed by a short-term overdraft at commercial banks.

Since terms of payment are a matter of negotiation, the underwriters are in position to negotiate for terms best suited to their own needs. All necessary arrangements can be made in advance. Through the use of their own capital and available bank credit, underwriters ordinarily encounter no difficulty in complying with the terms of payment. If the commitment is larger than a small group can handle conveniently, the purchase group can be expanded until financial backing is adequate.

Difficulty arises not in connection with making payment to the issuer, but in carrying securities which have failed of distribution. The aim of every investment banking house is to avoid tying up its resources in large inventories of unmarketable securities. Apart from the financial losses which may result from a decline in the value of such inventories, they constitute a handicap to the normal operations of the firm. The failure of one offering may render it difficult, if not impossible, for the firm to participate in another, if most of its capital is committed to the financing of the first. The effects of an unwieldy inventory are quickly and severely felt by the average firm whose contributed capital and borrowing capacity are limited. For the large firm, with substantial capital and powerful banking connections, the effects may be less severe and immediate, but the difference is merely one of degree. Excessive inventories, carried too long, have more than once proven a source of serious embarrassment even to large firms.

The capital of the investment banking firm should bear a reasonable relation to its average liabilities, actual and potential. A relatively small portion is employed in the equipment of offices. After adequate provision is made for working capital, most of the balance is available for the financing of its underwriting and other commitments in securities.

Investment banking firms normally handle issues which may aggregate at any one time several times the amount of their own capital. Accordingly, they seek the assistance of commercial banks to finance unsold portions of issues, as well as other securities held in their portfolios. They thus become semi-permanent customers of banks which supply funds necessary to the conduct of a larger volume of business than would otherwise be possible.

Under the Securities Exchange Act of 1934 the Board of Governors of the Federal Reserve System is authorized to prescribe the amount of credit that may be extended on listed securities. This power does not extend to loans on exempted securities (which include all federal, state and municipal issues), or to loans to dealers to finance the distribution of securities to customers not through the medium of a national securities exchange, or to loans by banks on nonequity securities. The statute thus imposes no restrictions upon the employment of bank credit in financing the underwriting and distribution of securities.

But banks are more cautious than they once were in passing upon applications for security loans. To avoid criticism from examiners, they must avoid badly secured loans. When the unmarketability of an issue has been demonstrated by an unsuccessful offering, banks may be reluctant to extend or maintain credit on the issue unless additional collateral is furnished. In periods of higher money rates, the unwary investment banking firm will find the mere carrying of inventories costly.

Occasionally smaller firms and dealers seek relief from the necessity of carrying substantial amounts of temporarily unmarketable securities by requesting large originating houses to repurchase such securities from them. Some originating houses consider it sound business policy to comply with such requests to assure cooperation in the distribution of future issues.

Attempts have been made by some investment banking firms to place the control of inventory upon a scientific basis through the device of budgeting for sales. With the past performances of its selling organization as a guide, a firm may develop a monthly sales budget which the buying department is expected to meet in order to satisfy the requirements of the sales department. Such budgeting demands close coordination between the activities of the buying and the selling departments. The operations of the selling department will now be considered.

Sale of New Issues

THE SELLING PROBLEM.—Investment bankers seldom purchase new issues with a view to investment. Their primary business is the merchandising of securities, and the purchase and sale of an issue are, in effect, interrelated steps in a single process.

The objectives sought by investment bankers in the marketing of new issues are profit, speed and placement. From the banker's point of view, an offering is successful: (1) if it yields sufficient profit to com-

pensate the purchase group participants for their underwriting risks and the selling group members for their distributing efforts; (2) if it is completed with sufficient dispatch to avoid the risk of unforeseen developments that may hamper the distribution and prolong the underwriting liability; and (3) if it results in securing a wide and permanent placement of the issue, thereby promoting price stability to the satisfaction of investors and issuer.

These objectives are not always consistent with one another. In particular, undue stress upon the necessity for speed may defeat the other objectives. While too much deliberation in the pace of a distribution presents certain dangers, it is equally true that too much haste has its perils. Where dealers and investors are not afforded adequate opportunity to appraise the merits of an issue but are rushed into taking commitments which they quickly regret, substantial amounts of the securities will be "dumped back" on the market and the underwriters may be compelled to effect repurchases on a large scale. This is a costly operation which may whittle down or wipe out the profit of an underwriting. Overemphasis upon speed may result, on the one hand, in inadequate placement, and, on the other, in smaller profits.

THE SALES DEPARTMENT.—In all but a few exclusively wholesale houses, the sales department is the focal point of the operations of an investment banking firm. A highly developed sales organization, with the distributing power which it provides, attracts to the firm invitations to participate in both purchase and selling groups.

The sales department consists of a sales manager and a staff of individual salesmen ranging in number from less than a handful to several hundred. The sales manager supervises the staff and usually has an important voice in determining selling prices and policies. The office salesmen maintain contact with customers personally and through correspondence. The outside salesmen or travelling representatives usually sell by personal solicitation.

The salesmen compile, through the years, customer lists which constitute a valuable asset to the firm. The direct personal relationship established between salesman and customer is a characteristic of modern investment banking. The strength of an investment banking firm lies not alone in its financial resources, but in a vigorous and adequately trained sales force.

In addition to the selling power generated through the sales force, partners and executives of the firm frequently maintain contacts with insurance companies, investment trusts and other institutional investors which are large purchasers of securities. Such contacts serve to augment materially the distributing power of a firm.

THE SELLING GROUP.—The principal vehicle for the actual distribution of new issues to investors is the selling group or selling syndicate. These terms are interchangeably used in modern investment banking procedure. An attempt has been made to differentiate between them by the National Association of Securities Dealers, Inc., a national securities association registered under the Securities Exchange Act of 1934. In its Rules of Fair Practice [Article II, Section 1 (g), (h)] the Association has defined a "selling syndicate" as any syndicate formed in connection with a public offering, to distribute all or part of an issue,

under an agreement which imposes a financial commitment upon syndicate participants to purchase any such securities. The Rules define a "selling group" as any group formed in connection with a public offering, to distribute all or part of an issue, under an agreement which imposes no financial commitment on selling group members to purchase any such securities except as they may elect to do so. The selling group is the arrangement in general use.

As heretofore indicated, the purchase group contract usually authorizes the originating firm to act as manager of the selling group. The manager handles all the details in connection with the formation and operations of the selling group. In the performance of these functions the manager acts as agent for the members of both the purchase and selling groups.

The first step in the formation of a selling group is the choice of dealers to receive invitations to become members. This step is of prime importance, since even the best of issues may fail of acceptance if offered by a group with inadequate distributing facilities. The chief criterion for the selection of selling group members is their ability to obtain permanent placement of the securities. The former practice of including in the selling group houses of financial strength but without distributing capacity has been largely abandoned. Financial strength still remains the principal criterion for inclusion in the purchase group, but unless coupled with distributing power, it is not a sufficient basis for membership in the selling group.

The large originating firms maintain records of the past performances of dealers who have been invited to join their selling groups. They are thus in a position to eliminate those dealers who have been consistently unsuccessful in placing securities allotted to them, and to increase the allotments of those who have been successful.

The small dealer usually feels obligated to adopt a consistent policy with regard to the acceptance of selling group invitations. If he rejects an offer to join a group formed to sell an issue which he does not consider altogether suitable for his customers, his name may be passed over when the same underwriters are ready to form a group to market a more desirable issue. For the small dealer, a regular place on the selling group lists of large originating firms may be a valuable asset. Such a place can be won, however, only by demonstrating a consistent willingness to accept invitations to join selling groups and a consistent ability to place the securities allotted to him.

But indiscriminate acceptance of selling group invitations is not without disadvantages. In the first place, it curtails the exercise of independent judgment by the dealer as to the merits of an issue. Secondly, a dealer recommending a security to a customer should have reasonable grounds to believe that the recommendation is suitable for the customer in the light of his other holdings, his financial situation and his needs, and this obligation cannot be properly discharged by the dealer who feels constrained to accept every selling group invitation that comes his way. Thirdly, an issue with little appeal for investors may require so much selling effort and expense as to render its marketing unprofitable.

The number of firms to be included in the selling group depends upon the reception investors are likely to accord the issue which, in

turn, depends upon the merits of the issue and the general state of the market. If there is uncertainty as to its reception, the number of dealers is increased, so that their aggregate allotments will exceed the total amount to be offered. In this way the entire issue may be disposed of, notwithstanding the inability of some participants to place their allotments. In the case of large issues, the number of firms invited to participate in the selling group may run to several hundred.

The "Trade Preference Rules" of the National Association of Securities Dealers, Inc. require consideration in connection with the formation and operation of selling groups. These Rules, in substance, provide (Article III, Sections 24 and 25):

> Selling concessions, discounts or other allowances may be allowed only as consideration for services rendered in distribution, and may not be allowed to anyone other than a broker or dealer actually engaged in the investment banking or securities business.
>
> In a transaction with a nonmember broker or dealer, a member may not allow or grant any selling concession, discount or other allowance allowed by such member to another member, and not allowed to the general public.
>
> No member may join with a nonmember broker or dealer in any syndicate or group contemplating the public distribution of any issue.

The effect of these Rules is to provide preferential treatment to members of the Association in the allowance of concessions or discounts and to exclude nonmembers from selling groups in which members participate. Since virtually all the large originating houses are members of the Association, membership has become a prerequisite to an invitation to join any important selling group. Such membership has also become a prerequisite for dealers who do not join the selling group but desire to obtain the benefit of the selling discount usually allowed dealers by selling group participants. It is now customary to provide in both the purchase group contract and the selling group agreement that discounts may be allowed only to members of the Association.

When the list of prospective members of the selling group is complete, the manager sends out letters of invitation to dealers on the list. The actual formation of the selling group, however, must be delayed until the effective date of the registration statement. This is due to the provision of the Securities Act of 1933 prohibiting sales, offers to sell or offers to buy prior to the effective date. While the preliminary negotiations between the issuer and the underwriters are specifically excepted from this prohibition, the exception extends no further. Before the effective date the underwriters may not lawfully sell or offer to sell to selling group members, nor may selling group members lawfully offer to buy from the underwriters.

During the period between the filing of the registration statement and the effective date, it is customary to acquaint dealers with the forthcoming issue through a device known as the "red herring prospectus," discussed in some detail below. The red herring prospectus, which describes the forthcoming issue but seldom contains reference to price or underwriting data, is usually furnished to the prospective members of the selling group several days in advance of the effective date of registration. Immediately after the registration statement becomes effective, the manager notifies the selling group members of the public offering price, the selling group concession and the amount offered for

subscription or allotted to each member. Dealers usually have until noon of the day when the registration statement becomes effective to accept the offer or reject it.

There are two main types of selling groups. In one type the participant receives the right to make a firm subscription on the offering date for a fixed amount of the securities. He is informed in advance of the amount reserved for him, and this amount is not subject to allotment. He may make additional subscriptions, but these are subject to allotment by the manager. In the second type of selling group the participant is invited to subscribe for any amount he desires, all subject to allotment by the manager. In this type, a participant may receive the full amount which he applies for or a lesser amount. Where a readily marketable issue is involved, participants are likely to request larger amounts than they actually expect to receive upon allotment.

The life of a retail selling group is fixed by the selling group agreement. In the normal case it is provided that the existence of the group shall extend over a period of 30 days, subject to earlier termination by the manager or to extension for limited periods by the manager with the consent of at least a majority in interest of the members of the purchase and selling groups. Quick termination of the selling group is usually favored by the underwriters, to relieve them of the necessity for maintaining the market price as soon as possible.

THE SELLING GROUP AGREEMENT.—Management and operation of the selling group are governed by an agreement in the form of a letter from the manager to the members of the group. While the basic outlines of the agreement are relatively simple, special provisions may be inserted for the purpose of preventing abuses in the course of the selling operation. A typical selling group agreement in which the participants are offered the right to make firm subscriptions covers the following points:

1. Description of Issue and Underwriting Arrangements.—Under the Securities Act of 1933 the sale or offer for sale of a registered security must be accompanied or preceded by a prospectus meeting the requirements of the Act. The prospectus contains, among other things, a full description of the issue, the underwriting arrangements and the public offering terms. A copy of the final prospectus is sent to the dealer with the selling group agreement and it is customary to make reference thereto for these matters.

2. Sale of Part of Issue to Dealers.—The agreement recites that the underwriters are offering a part of the issue for sale, subject to the terms and conditions of the underwriting contract and of the selling group agreement, to certain dealers who are members of the National Association of Securities Dealers, Inc. (such dealers constituting the selling group), at the public offering price less a specified discount; that any or all of the several underwriters may be included in the selling group; and that the manager is to receive a specified sum as compensation for his services in managing the offering and the selling group. At one time it was customary to keep a new issue intact, except for portions earmarked for sale abroad or withdrawn for some other special purpose, until the public offering was made through the selling group. This is no longer the case. In current practice, the selling group is con-

cerned with the sale of only that portion of a new issue which is not actually sold by purchase group members.

3. **Offer of Specified Amount and Method of Acceptance.**—The underwriters reserve firm for purchase by the dealer to whom the letter is addressed (hereinafter referred to as the "member") a specified amount of the securities, subject to the terms and conditions of the underwriting contract and of the selling group agreement. Securities offered firm but not accepted within the time provided may be reoffered and sold by the underwriters or may be otherwise used or dealt with in the manager's uncontrolled discretion. Acceptance of the offer by the member, which may be in whole or in part, should be addressed to the manager and received by it prior to a fixed time. Subscriptions in addition to the amount reserved may be made. The manager reserves the right to reject any excess subscriptions in whole or in part and to make allotments in respect thereof.

4. **Offer of Securities by Dealer.**—The member is authorized to offer the securities to the public immediately upon receipt of advice from the manager to the effect that the issue is released for offering, but subject to the terms of offering set forth in the prospectus, to the conditions of purchase by the underwriters, to the terms and conditions of the selling group agreement, and to the securities laws of the various states. The agreement recites that those of the underwriters not included in the selling group have agreed to be governed by the terms and conditions of the selling group agreement in the same manner as if they were members of the selling group.

5. **Restriction on Resale Price.**—No member of the selling group, as such, shall at any time prior to its termination offer the securities for resale at a price below the public offering price or allow any concessions therefrom to anyone except as provided in the selling group agreement. The members of the selling group may, out of the selling group discount, allow a concession not in excess of a stipulated amount to members of the National Association of Securities Dealers, Inc. Upon receipt of advice from the manager that all securities have been sold and the books closed, members of the selling group may purchase and sell securities among themselves at the public offering price less the selling group discount.

6. **Payment for Securities.**—The method and time of payment by the member are clearly specified, with an indication of the probable date upon which the definitive securities will be delivered.

7. **Selling Group Discount.**—On securities purchased by the member pursuant to the selling group agreement, he will be entitled to the selling group discount, payable as soon as practicable after the termination of the selling group. In the event that during the life of the selling group the manager purchases for the account of the several underwriters in the open market or otherwise, at or below the initial public offering price, any securities delivered to the member, the manager reserves the right to withhold the selling group discount on such securities.

8. **Remedies for Default in Payment.**—If the member defaults in paying for securities accepted by him or for additional securities sub-

scribed for and allotted to him, the manager may, in his discretion, cancel such member's commitment or sell the securities for such member's account, the member remaining liable for any loss resulting from his default.

9. **Advertisement of Securities.**—The agreement recites that it is expected that the public advertisement of the securities will be made on a specified date and that after such advertisement has appeared, but not before, the member shall be free to advertise on his own responsibility, over his own name and at his own expense, subject to any restrictions of local laws and to the requirements of the Securities Act of 1933.

10. **Registration Statement and Prospectus.**—The agreement recites that a registration statement covering the securities was filed with the Securities and Exchange Commission and has become effective. No member of the selling group or any other person is authorized to give any information or make any representations other than those contained in the enclosed prospectus. Additional copies of the prospectus in reasonable quantities will be supplied to each member upon request. Each member agrees that in offering and selling the securities he will comply with all applicable requirements of the Securities Act of 1933 and the Securities Exchange Act of 1934.

11. **Blue Sky Laws.**—The manager will inform each member, upon request, as to the states in which the manager has been advised that the securities have been qualified for sale under the respective securities or blue sky laws, but neither the manager nor any of the other underwriters assumes any obligation or responsibility as to the right of any member to sell the securities in any state or as to any sale therein.

12. **Termination of Selling Group.**—The selling group will terminate on a specified date or on such earlier date as the manager, in his sole discretion, may determine; or it may be extended for a period or periods not exceeding in the aggregate 60 days, with the consent of members of the selling group purchasing securities and underwriters retaining securities for sale who, in the aggregate, have so purchased or retained more than 50% of the issue. The manager may terminate the selling group, whether or not extended, at any time without prior notice.

13. **Authority of Manager.**—The manager will have full authority to take such action as he may deem advisable in respect of all matters pertaining to the selling group, but the manager shall act only as agent for the several members of the selling group and the underwriters. Neither the manager nor any of the other underwriters assumes any obligation or liability in respect of the value of the securities, the form or validity of the securities, the registration statement or prospectus, the performance by the issuer of any agreement on its part to be performed, or the qualification of the securities for sale under state laws, except for lack of good faith and except for the obligations expressly assumed by the manager in the selling group agreement. No member of the selling group is authorized to act as agent for the several underwriters either when offering the securities to the public or otherwise.

There is usually enclosed with the selling group agreement a form letter in which the member confirms his purchase of the amount reserved firm for purchase by him. The letter also acknowledges receipt

of the prospectus and recites that, in purchasing the securities, the member has relied only upon the prospectus and upon no other representations whatsoever. On the reverse side of the letter there is frequently found a form of subscription to securities in excess of the amount reserved firm for purchase by the member, subject to the manager's right to reject the excess subscription in whole or in part and to make allotments in respect thereof.

THE "RED HERRING PROSPECTUS."—The Securities Act of 1933 provides that the effective date of a registration statement shall be the 20th day after filing, or such earlier date as the Securities and Exchange Commission may set with due regard to the adequacy of information on the issuer theretofore available to the public, the public interest and the protection of investors. Until the effective date, it is unlawful for any person to use the mails or channels of interstate commerce to sell or offer to buy the securities, through the medium of a prospectus or otherwise.

The intent of Congress in prescribing a compulsory waiting period between the filing date and the effective date was two-fold: to slow down the process of distribution and to afford opportunity for public and professional scrutiny of the proposed issue. It was contemplated that during the waiting period there would be widespread dissemination of information among dealers and the public generally with respect to the issue. At the same time it was contemplated that no sales, offers to sell, or offers to buy, would be made until the effective date.

Obviously, public and professional scrutiny cannot be stimulated merely by the filing of a registration statement, even though a copy of such statement is open to public inspection. Only a relatively few dealers and a small segment of the public can possibly have the opportunity to inspect the statement. The Congress, recognizing this, met the problem for the period subsequent to the effective date by requiring that the sale of a registered security be accompanied or preceded by the delivery of a prospectus to the purchaser. No express provision was made in the Act for a medium for transmitting information to dealers and other prospective purchasers during the waiting period.

Early in the administration of the Act, the red herring prospectus emerged as the most effective vehicle for the transmission of information during the waiting period. To avoid running afoul of the prohibition against making offers to sell or soliciting offers to buy before the effective date, the red herring is required to comply with certain standards. In general, these are that the red herring should be a fair summarization of the salient information in the registration statement; should not stress or emphasize the favorable as against the unfavorable aspects of the security; should contain no recommendation or opinion as to the merits of the security; and should be clearly marked to indicate that it is informative only and to negative any intent to solicit orders. When these standards are met, the red herring may be sent to dealers, brokers and institutional and individual investors without violation of the Act.

The term "red herring" is derived from the fact that each page of the document contains a statement printed in red ink to the effect that the document is not an offer to sell or the solicitation of an offer to buy any security, and that no offer to sell can be made and no offer to buy

can be accepted until after the effective date of the registration statement.

Under a rule of the Securities and Exchange Commission adopted December 6, 1946, the sending or giving to any person, before a registration statement becomes effective, of a copy of the proposed form of prospectus filed as part of the registration statement, will not in itself constitute an offer to sell, offer for sale, attempt or offer to dispose of, or solicitation of an offer to buy within the meaning of the Act, if the proposed form of prospectus contains substantially the information required by the Act to be included in a final selling prospectus, or if it contains substantially that information with certain exceptions. The information which may be omitted from the red herring includes the offering price, underwriting discounts or commissions, discounts or commissions to dealers, amount of proceeds, conversion rates, call prices, and other matters dependent upon the offering price. While use of the red herring is permissive under the rule, the Commission has announced that in passing upon requests for acceleration of the effectiveness of registration statements it will consider whether adequate dissemination has been made of copies of the red herring as permitted by the rule. As a minimum, the Commission will require proof of the distribution, a reasonable time in advance of the anticipated effective date, of copies of the red herring, to all underwriters and dealers who may be invited to participate in the distribution of the security.

THE PUBLIC OFFERING.—On the morning of the public offering the selling group members are all supplied by the manager with quantities of the final selling prospectus. It is essential to expedite the distribution of such prospectuses to dealers, since they cannot lawfully offer the security for sale without delivering a copy of the prospectus to every prospective purchaser. To speed up distribution of prospectuses, they are usually delivered in advance to telegraph offices in the areas where the dealers are located with instructions for their release to dealers on the public offering date. Where the offering involves an additional issue of a security listed on an exchange, a quantity of prospectuses may also be delivered to the exchange for redelivery, on request, to members executing orders in the security.

Publicity for the issue is obtained through news releases and the so-called "tombstone prospectus." The tombstone prospectus is a form of newspaper advertisement which does no more than identify the security and state the price, by whom orders will be executed, and from whom an offering prospectus may be obtained. If it is so limited, the tombstone prospectus is not a prospectus within the meaning of the Securities Act of 1933, and hence need not contain all the information required for a statutory prospectus.

Additional publicity for the public offering may be obtained in certain instances through another form of advertisement known as the "newspaper prospectus." The Securities and Exchange Commission has ruled that, to qualify as a newspaper prospectus, the advertisement may appear only in newspapers, magazines or other periodicals which are admitted to the mails as second-class matter and which are not distributed by the advertiser. All information included in a newspaper prospectus may be expressed in such condensed or summarized form as, in the light of the circumstances under which it is used and the necessity

for brevity, will merely serve to direct attention to the material facts required to be included therein. Accordingly, a newspaper prospectus need not contain a statement of such facts to the extent contained in the offering prospectus. The instructions of the Commission authorize omission from the newspaper prospectus of a great many items which are required to be included in the offering prospectus.

The manager has full discretion to fix the actual date of public offering at any time subsequent to the effective date of the registration statement. In practice, where market conditions permit, the offering is generally made on the day following the effective date. Members of the selling group who actually endeavor to sell securities publicly before the time fixed by the manager are guilty of a practice known as "beating the gun."

The public offering usually begins at the opening of business on the date fixed by the manager. The process of commencing the offering is referred to as "opening the books." When the books are opened, the manager receives subscriptions both from selling group members and outside dealers. Except where subscriptions are firm, he retains the privilege of rejecting them in whole or in part.

The manager is authorized to close the books at his discretion. If the demand for the issue is great, the books are usually closed almost immediately after they are opened. A public announcement may then be made to the effect that the issue has been over-subscribed. Such an announcement is not intended to indicate that the entire issue has been placed with investors, for subscribing dealers may not have had opportunity to investigate the actual demand among their customers. Hence, over-subscription generally means over-subscription by dealers, who may still be left with the task of placing the securities with their customers. For this reason a public announcement to the effect that "orders have been received from dealers and others for an amount in excess of the offering" usually reflects the true situation more accurately than one to the effect that the entire issue has been sold.

Where an issue is "sticky," the books may remain open for a considerable period. If the offering does not result in placement of the entire issue, the books may never be formally closed and the unsold portion is distributed among the members of the purchase group at its expiration.

Normally, subscriptions are accepted and sales confirmed without any cash payment. The customer is not called upon to make payment until about two weeks later, when temporary securities are delivered. Such temporary securities are negotiable and can be traded in as readily as the permanent certificates. A period of several months may be required for the preparation of permanent engraved certificates and, until they are issued, the temporary securities serve as their equivalent for all purposes.

SYNDICATE ABUSES.—Certain practices have developed in the operation of selling groups which are contrary to the letter or spirit of the selling group agreement and which tend to hamper the success of the offering from the point of view of the underwriters. The most important of these are price-cutting and "beating the gun."

Price-Cutting.—Under stress or where the rate of distribution is slow, a selling group participant may endeavor to stimulate buying

through various devices which have the effect of reducing the public offering price. The simplest method is to allow the dealers' discount to persons who are not eligible to receive it. As heretofore noted, the dealers' discount may not be allowed by a member of the National Association of Securities Dealers, Inc. to a non-member of the Association, and the selling group agreement usually contains a prohibition to that effect. Consequently, allowance of the discount to a public buyer or a nonmember dealer is in contravention of the rules of the Association and the selling group agreement.

A more subtle method of price-cutting is found in the practice of "switching" customers out of old securities into the new issues. Here, the price-cutting is accomplished by accepting the old securities at a premium above their market prices, in exchange for the new security at the public offering price. While technically the public offering price is maintained in the transaction, the payment of a premium for the securities accepted in exchange constitutes an indirect rebate to the customer.

A third method is to sell the new security to a customer at the public offering price while simultaneously selling another security to the same customer at a discount from its market price. Here again, the public offering price of the new security is technically maintained, but the customer receives a rebate in the form of a discount on the other security.

To discourage these and similar expedients, the selling group agreement provides for the forfeiture of a participant's selling commission on any securities repurchased by the manager, during the life of the group, at or below the public offering price. The manager keeps careful records of all securities subscribed for by selling group members in order that the securities repurchased in the open market can be traced back to the member who sold them in the first instance.

Effective means for combatting indirect price-cutting practices have been difficult to devise. One of the Rules of Fair Practice of the National Association of Securities Dealers, Inc., aimed at "switching," provides that when a selling group participant takes securities in exchange he shall do so at the fair market price at the time of purchase or shall act as agent in the sale of such securities (Article III, Section 8). This rule has been of limited effectiveness, since new variations on price-cutting methods are constantly being devised.

The Securities and Exchange Commission overruled an attempt by the Association to discipline a large group of its members for cutting the price of a bond issue of the Public Service Company of Indiana. Since this attempt had significant repercussions, the facts are summarized herewith.

The Public Service Company of Indiana Case.—The case (In the Matter of National Assn. of Securities Dealers, Inc., Securities Exchange Act Release No. 3700, June 13, 1945) grew out of the underwriting, in the year 1939, of an issue of bonds of the Public Service Company of Indiana by a group of 67 underwriters. The underwriters paid the issuer par plus accrued interest for the bonds, and the public offering price was set at 102. The purchase group contract provided that no member of the group would sell any bonds below the public offering price, less the selling concession. A total of $11,640,000 bonds was reserved for

sale through the selling group and was accepted by 396 dealers. The selling group agreement recited that the underwriters were offering to selected dealers a part of the issue at the initial offering price of 102, less the selling concession allowed dealers. Provision was also made for forfeiture of the selling concession in respect of securities purchased by the manager in the open market at or below the public offering price. All the underwriters and selling group participants were members of the National Association of Securities Dealers, Inc.

Approximately one-half the issue was distributed during the first two days after commencement of the public offering. Thereafter sales continued at a slower pace. The entire distribution occupied a period of 103 days, far longer than the average period required for the distribution of such issues. This was due primarily to the sharp but temporary decline in the bond market consequent upon the out-break of World War II.

Beginning with the first day of the offering and extending through most of the distribution period, members of both the underwriting and selling groups made sales at prices below those required to be maintained by the terms of the agreements. About 3% of the entire issue was sold at net prices ranging from 99¾ to 101⅞.

Some time after the offering began, informal complaints of price-cutting were made to the National Association of Securities Dealers, Inc. The Association initiated an investigation among participating underwriters and dealers from which it appeared that 107 firms had engaged in transactions in which the uniform selling price and concession terms were disregarded. Following the investigation, 90 cases were instituted by the Association to discipline members for violation of the Association's rule requiring the observance of high standards of commercial honor and just and equitable principles of trade. In about 70 cases the members were found guilty and fines were assessed against them ranging from $50 to $500. The other cases were dismissed. Upon review by the Association's Board of Governors, decisions to assess fines were affirmed and dismissals were reversed.

The Securities and Exchange Commission then instituted proceedings under Section 15A of the Securities Exchange Act of 1934 to review six of the cases which appeared to typify all the situations. The principal substantive questions considered by the Commission were as follows:

1. Was the Association's rule under which the penalties had been imposed consistent with the requirements of the Securities Exchange Act of 1934 that the rules of an association shall not be designed "to fix minimum profits, to impose any schedule of prices, or to impose any schedule or fix minimum rates of commissions, allowances, or other charges," and that such rules shall be designed "to remove impediments to and perfect the mechanism of a free and open market"?
2. Were the price-maintenance provisions of the underwriting and selling group agreements an illegal restraint of trade within the meaning of the Sherman Antitrust Act, thus making their enforcement by the Association inconsistent with the requirement of the Securities Exchange Act that its rules be designed to protect the public interest?

In view of the Sherman Act question, the Department of Justice intervened in the proceedings before the Commission.

The Commission held, among other things, that the purchase group and underwriting agreements did contain a "schedule of prices" and discounts within the meaning of the provision of the Securities Exchange Act of 1934 cited; that while a member's failure to live up to his contractual undertaking to maintain such a schedule constituted a breach of "just and equitable principles of trade," the Association's rules could not be interpreted in such manner as to add impediments to a free and open market or to fix minimum profits or to impose any schedule of prices or any schedule of commissions, allowances, discounts or other charges; and that, accordingly, the Association had erroneously construed its rule as authorizing disciplining of members for violating price-maintenance agreements.

The Commission specifically added, however, that it was taking no action to upset the use of price-maintenance agreements; that its conclusion subtracted nothing from any sanctions which might previously have been legally imposed to enforce such agreements; and that members engaging in price-cutting would still be faced with civil liability for breach of contract. The decision was expressly limited to declaring invalid the Association's interpretation of its rule as requiring adherence to price-maintenance agreements.

Having concluded that the Association's decisions were erroneous, it became unnecessary for the Commission to pass upon the question of whether price-maintenance provisions of syndicate agreements violated the Sherman Act. But the Commission did express the view that the price-maintenance agreements were not illegal under the Sherman Act. The mere making of agreements containing provisions for a fixed offering price, price-maintenance and stabilization, the Commission said, is not per se unlawful, although like many other contracts these may be carried out under circumstances which amount to unlawful suppression of competition.

Ordinary price-fixing arrangements in connection with the underwriting of security issues remain enforceable, unless the courts hold otherwise, except through the instrumentality of the National Association of Securities Dealers, Inc.

"Beating the Gun."—The abuse of "beating the gun" consists in endeavoring to sell a security before formal public offering. Members of the purchase group are in a position to supply clients with advance information concerning the issue and thus to secure orders before smaller dealers obtain adequate information. As a result, customers tend to gravitate toward the larger houses which are in possession of such advance information. Salesmen of these houses sometimes accept subscriptions and even make firm sales, thus putting their customers on a favored basis and obtaining an advantage over the houses which await the formal public offering. Any offer or attempt to sell a security while in process of registration is unlawful and subjects the offending firm to the penalties of the Securities Act of 1933. Nevertheless, such practices have occurred from time to time and have been drastically dealt with by the Commission. In the case of exempt issues, where the registration provisions of the Securities Act do not apply, the problem of preventing dealers from "beating the gun" lies with the underwriters. Habitual offenders are usually penalized by disqualification from future group participations.

SECURITY SALESMEN.—New issues are sold in substantial measure through direct solicitation by salesmen in the employ of investment banking firms. These salesmen, largely recruited from graduating classes of universities, receive a brief training course in the elements of investment and the principles of security selling. They are then supplied with lists of prospective customers and sent out to interview prospects and to obtain orders for the securities offered by their employers. The practice of employing salesmen grew out of the desire of investment bankers to place securities with a large number of individual investors, as distinguished from a relatively small number of institutional investors. This type of placement is designed to obtain a broader market for the offered security and to expand the number of potential buyers of future issues.

In recent years, salesmen have shown a tendency to add some of the functions of investment advisers to their chief function of supplying data concerning the particular issue being offered. Many salesmen, with or without solicitation on the part of their customers, maintain records of the customers' portfolios and suggest the advisability of making changes therein. Often, unfortunately, a salesman is not equipped by training or experience to furnish investment advice. To stimulate sales he is likely to emphasize possible rapid price appreciation and to ignore basic questions pertaining to safety of principal, stability of income, adequacy of return and similar elements bearing upon the investment merit of a security. If the security salesman of the future continues to exercise the advisory function, it will be necessary for him to become more expert than he is at present in the intricacies of the securities business and in methods of security valuation.

Under a rule of the National Association of Securities Dealers, Inc. (Rules of Fair Practice, Article III, Section 27), any member who employs a salesman is required to supervise his sales methods and his correspondence in relation to offers of securities, and any sale made by a salesman to an investor is required to be approved by a partner, executive or branch office manager of the member. In addition, the member must require that all orders taken by a salesman for the purchase of a security be subject to acceptance and confirmation by the member.

The salesman relies for his compensation chiefly upon a commission for each bond or share of stock sold from offerings by his employer. As a rule, he is not compensated for obtaining orders to purchase securities outstanding in the market. Thus, he has a strong incentive to sell new issues, which tempts him to urge his customers to switch from old into new securities. Many firms pay no fixed salaries in addition to commissions, but allow experienced men a drawing account against future commissions. Other firms, recognizing the goodwill brought to their organizations by qualified salesmen, pay substantial fixed salaries regardless of commissions earned, and allow commissions on sales in excess of a minimum amount. It is not uncommon to find that the total salary and commissions of a salesman with his own valuable list of customers exceeds the share of a partner in the profits of the employing firm.

In computing commissions, investment banking firms may allow either a flat rate per bond or share or a percentage of the gross profit

earned on each issue. Typical flat-rate payments are $2 to $6 per thousand for the general run of bonds and $1.25 per thousand for municipal issues. Typical percentage commissions are from 20% to 40% of the dealer's gross spread. Some houses establish a sliding scale of commissions, increasing the rate with the volume of sales effected. Special credit may be given for the opening of new accounts. Salesmen selling to institutions usually receive a lower rate of commission per unit, both because of their larger sales volume and because the servicing of institutions may require little more than the taking of orders on the part of the salesman.

From time to time the question of establishing a uniform rate of commission for salesmen has been raised. Such uniformity would undoubtedly tend to make the salesman more impartial as an adviser to the customer, since he would not have the incentive of pushing particular issues on which special rates of commission are offered. On the other hand, the present practice of paying a percentage of gross profit, with extra allowances when business is poor, imparts some elasticity to investment banking organizations and permits the speeding up of sales effort when necessary through the larger incentives.

Market Stabilization

MECHANICS OF STABILIZING.—Stabilizing may be broadly defined as the buying of a security for the purpose of preventing or retarding a decline in its open market price in order to facilitate its distribution to the public. (Stabilizing may also involve short selling to prevent sharp increases in the open market price, and to cushion later declines by providing the support of covering purchases.) Stabilizing is closely related to the process of underwriting and distributing new issues and, in the eyes of most investment bankers, is an essential feature of that process.

Some proportion of an issue, even though initially it may be completely sold by the underwriters to the selling group dealers, will quickly find its way back to the open market. This is due to the fact that some purchasers change their minds and almost immediately resell, and some —the so-called "free riders"—purchase in the first instance with the intention of selling out as soon as possible. Many subscriptions are placed in the expectation that the price will advance and a profit can be realized before the date of payment.

If re-offerings are not readily absorbed in the market, they will tend to force the market price below the public offering price of the issue. To prevent such a drop in price, the manager of the underwriting syndicate enters a syndicate bid to buy such securities as may be offered in the open market.

Where the stabilizing is to facilitate a public offering of bonds or a new stock issue at a fixed price, the syndicate bid is at the offering price. This type of market support is known as "pegging." It is only when selling pressure becomes too heavy to make "pegging" at the original offering price practicable that the syndicate bid will be dropped to lower levels.

Another type of stabilizing is employed in connection with distributions in which the offering price is not fixed but is represented to be at

the market or at a price based on the market. In this situation, the syndicate does not maintain a "peg" in the market by bidding steadily at one price. Instead, it enters bids on a scale down, so that any downward trend in the market price will be retarded or "cushioned" by the underwriters' purchases at successively lower levels. This type of stabilizing is also commonly used to facilitate distribution of additional shares offered by a corporation to its stockholders, usually at a price below the prevailing market price. In such cases, a "peg" is not deemed essential, the stabilizing being designed merely to prevent the market price from dropping to a level which would render it unattractive for stockholders to exercise their rights.

Stabilizing is regarded as necessary only in the case of issues which are neither notable successes nor notable failures. In the former case the market for the issue usually takes care of itself. In the latter, where the selling pressure in the open market is too great, the underwriters cannot afford to support the market at or near the issue's original offering price. For the same reason, stabilizing cannot as a practical matter be used to stem a market or economic trend of any major significance.

ARGUMENTS AGAINST STABILIZING.—1. Some critics of stabilizing view it as a form of manipulation which interferes with free and open markets. It is a negative type of manipulation, since it seeks to retard and not to generate market movements. Nevertheless, it is argued, artificial interference with the market in any form is susceptible of abuse. The legislative hearings which preceded the adoption of the Securities Exchange Act of 1934 showed abuses by underwriters of the stabilizing process in the past.

2. A further argument against stabilizing is that when the stabilizing operation is ended and the "peg is pulled," the market price of the security often drops with ensuing loss to all who purchased it on the basis of the artificial, "pegged" market price. Critics point to this situation to support the contention that, insofar as stabilizing prevents market prices from falling before the "peg is pulled," it tends to aid and encourage overpricing of securities.

3. An argument less frequently heard today than formerly is that stabilizing is misleading because of the absence of publicity. Investors have, in the past, been misled into the belief that they were purchasing securities at prices set by the normal forces of supply and demand when, in fact, the contrary was true. Since March, 1939, however, the Securities and Exchange Commission's rules have required that all prospectuses under the Securities Act of 1933 unequivocally state in simple language, where such is the case, that it is the intention of the underwriters to stabilize the market in aid of the offering. Later regulations of the Commission have been devised to give publicity to the transactions effected for stabilizing purposes in connection with certain types of offerings. Attacks on stabilizing, based upon the absence of publicity, have thus lost much of their force.

ARGUMENTS FOR STABILIZING.—1. Advocates of stabilizing argue that it is warranted to offset market abnormalities which result from the very fact of the public offering. When a new issue is offered to the public, a temporary glut of the market for the security may be the immediate result. At the same time, demand for the issue being offered is diverted by the underwriters and selling group dealers away

from the open market. Scattered open market sales by "free riders" and other buyers who change their minds, taken in conjunction with the sudden influx of supply and the accompanying diversion of normal open market demands into direct distribution channels, unless counteracted, may affect the market price out of all proportion to their real significance. Therefore, underwriters urge that stabilizing, although admittedly an artificial influence, is justified to neutralize a temporary condition of oversupply which is itself abnormal.

2. Another argument is based upon the underwriters' view that it is appropriate and desirable for a seller to permit a buyer to return his securities if he so desires. Dealers or underwriters may overestimate local demand, just as investors may overestimate their own ability to carry a security. It is consequently desirable, say underwriters, that they should be permitted to repurchase and reallocate to others the securities of purchasers who bought more than they can handle. Another variation of this contention is that underwriters have an obligation to purchasers of the issue to afford a market place where those who wish to sell may do so at a fair price.

3. A further argument made by the advocates of stabilizing is based upon the necessities of the situation. A corporation desiring to obtain additional capital needs some advance assurance that it will obtain the full amount required within a reasonable period and at a predetermined cost. Such assurance is obtained through the medium of the firm commitment entered into by the purchase group. But underwriters enter into firm commitments to buy only on the assumption that they will, in a short time, be able to sell the securities to a large number of institutional and individual investors. In turn, the argument continues, the underwriters' ability to resell the issue, except in a "bull market," depends to some degree on their power to stabilize the market. When an entire issue is bought by underwriters at a fixed price, it is said to be vital that those underwriters be able to protect themselves, as well as selling group dealers, against a disorderly open market during resale of the issue to the public. In this connection, it is pointed out that American investors follow daily price quotations closely and may be as much concerned with immediate paper profits or losses as with the long-term fate of the security. Without the power to stabilize, therefore, many underwriters would be unwilling to take the risk of firm commitments, and the firm commitment, with the benefits and assurances it offers to the issuing corporation, would tend to disappear.

LEGAL RESTRICTIONS ON STABILIZING.—The Securities Exchange Act of 1934 contains a general prohibition against manipulation of security prices up or down. It does not, however, prohibit transactions for the purpose of "pegging, fixing or stabilizing" security prices, except to the extent that these transactions may be in contravention of such rules or regulations as the Commission may prescribe as necessary or appropriate in the public interest or for the protection of investors. The Commission has prescribed certain regulations which endeavor to reconcile, as far as possible, the often conflicting objectives of protecting purchasers of securities, on the one hand, and of preserving the ready flow of capital into industry, on the other.

Since 1939, the Commission has required the filing of detailed reports respecting all stabilizing operations conducted to facilitate the distribu-

tion of security offerings in respect of which a registration statement has been filed under the Securities Act of 1933. In any case in which the registrant or any of the underwriters knows or has reasonable ground to believe that it is intended to stabilize the price of any security to facilitate the offering of the registered security, there must be placed on the first or second page of the prospectus the following statement in capital letters:

TO FACILITATE THE OFFERING, IT IS INTENDED TO STABILIZE THE PRICE(S) OF

.....

(Identify security(ies) in which stabilizing transactions will be effected.)

ON .....

(Identify exchange(s) on which stabilizing transactions will be effected. If none, omit this line.)

THIS STATEMENT IS NOT AN ASSURANCE THAT THE PRICE(S) OF THE ABOVE SECURITY (IES) WILL BE STABILIZED OR THAT THE STABILIZING, IF COMMENCED, MAY NOT BE DISCONTINUED AT ANY TIME.

Brokers and dealers are required to file with the Commission daily reports of transactions effected for the purpose of stabilizing the price of any security to facilitate an offering registered under the Securities Act of 1933.

A further regulation adopted in 1940 applies to any person who effects any series of transactions in any security (other than an exempted security) registered on a national securities exchange for the purpose of pegging, fixing or stabilizing the price of such security, to facilitate an offering at the market of any registered security. The Commission believed that abuses have been and can again become most prevalent in stabilizing so-called "market offerings," where the offering price is represented to be at, or based upon, open market prices supposedly established by the ebb and flow of supply and demand. Before the Act, operations to facilitate this type of offering often constituted flagrant pool manipulations. The rules prohibit any "mark-up" of prices or rigid "pegging" of the market in these offerings. Stabilizers on each day can buy only on a scale down until the price has dropped by a fixed amount. They are required to give notice of their intention to stabilize. If stabilizing has actually commenced, that fact must also be disclosed. Stabilizers may neither support the market nor profit from its independent rise at any price more than one point above the level at which stabilizing is commenced. The rules also prohibit any stabilizing at prices to which the stabilizers have reason to believe the security has been previously raised by illegal manipulation. The requirement that brokers and dealers file daily reports of stabilizing transactions is expanded for these offerings to cover every person effecting a stabilizing transaction under the regulation.

OTHER MARKET ACTIVITIES.—The task of stabilizing new issue prices is one of the functions performed by the trading department of an investment banking firm. This department engages in a number of other market activities also. It buys and sells outstanding seasoned securities which present opportunities for profitable trading. It accumulates in the open market or from large private or institutional holders blocks of securities which appear to be underpriced, and endeavors to resell such blocks at a sufficient advance to make the operation profit-

able. When an operation of this sort involves a substantial amount of securities, it is known as a "secondary distribution." A secondary distribution relates to securities already outstanding, and is thus distinguished from a primary distribution which relates to newly issued securities.

The trading department of an investment banking firm is also called upon to dispose of securities received from customers in exchange for new issues offered by the firm. The salesman endeavoring to promote the sale of a new issue frequently is told by the customer that he has no cash available for investment. In many instances he meets this problem by reviewing the customer's existing holdings and suggesting "switches." As heretofore pointed out, "switching" is deemed to be contrary to fair trade practice where any premium is paid to the customer on the security accepted in exchange, since the premium constitutes an indirect rebate of the dealer's concession on the offered security. When securities are taken in exchange, it becomes the function of the trading department to dispose of them in the open market or to other customers of the firm.

Additional functions performed by the trading department include the making of secondary markets in issues originally offered by the firm and the execution of commission orders for customers desiring to purchase or sell securities in the open market.

Statistical and Advisory Activities

The statistical department of an investment banking firm facilitates the work of the other departments by supplying them with analyses and reports on securities and with material which enables them to answer inquiries. When a new financing proposal is received by the firm, the statistical department compiles for the buying department data required for the preliminary investigation of the issuer and for the more comprehensive later investigation. It also furnishes the buying department with information upon the basis of which the latter may advise the issuer as to the most appropriate form of security to be issued and the most favorable time and conditions for the public offering. The statistical department further assists in compiling the material required to be included in the registration statement and prospectus.

The statistical department aids the selling department by equipping salesmen with the information they need to respond to inquiries from prospective buyers. It aids the trading department by supplying analyses on securities which offer profitable trading opportunities. Where the firm offers investment advisory service, the statistical department bears the brunt of this work, preparing special studies, circulars and bulletins for dissemination among customers of the firm.

Many firms invite customers and prospects to submit lists of their holdings for analysis. These lists are reviewed by the statistical department and recommendations are made from time to time for changes into new offerings.

Accounting and Record-Keeping

The accounting department of the investment banking house keeps records of security and money transactions. Cost accounting, auditing, budgeting and statistical analysis of records have not been thoroughly

developed in this field. Many houses restrict their bookkeeping activities to the "cage routine" for keeping records of cash and securities, keeping customers' accounts, and preparation of the firm's income account and balance sheet. Few have an auditor permanently attached to the organization, and the budgeting of expenses is rarely encountered. Sales data have been analyzed to determine the average cost of selling securities in a few instances, and an analysis of departmental expense prepared to ascertain the profitability of the important operating departments. Much remains to be done, however, to bring investment house accounting up to date.

While the basic function of the investment banking firm is to act as middleman in the distribution of new issues, these organizations have branched out into other related activities to increase their revenues. Since the volume of new financing is subject to considerable fluctuation, other activities are often necessary to lend greater stability to income and to aid in meeting overhead expense at all times. The most important related activity is the business of dealing in securities already outstanding, either as broker or as dealer. A number of houses primarily engaged in the investment banking business are member firms of securities exchanges, and such membership enables them to handle a substantial volume of commission orders for customers. Investment banking houses also do an extensive business in unlisted securities, acting as over-the-counter dealers.

On the other hand, many firms primarily engaged in brokerage business have opened bond departments, thus swelling the ranks of investment houses. The efforts of brokerage firms to establish profitable bond departments have not been universally successful. Where the brokerage firm is one of high repute, with a list of institutional and wealthy individual customers, the bond department may become a profitable and important adjunct to the firm's business. But where the customers of a stock exchange house have a more speculative outlook or are chiefly concerned with market appreciation, the firm may encounter difficulty in selling them conservative bonds and preferred stocks on a low-yield basis. In some brokerage houses, the management may be satisfied if the bond department "breaks even," regarding it as a source of prestige rather than profit.

A number of investment houses act as managers of portfolios for individual or institutional investors. This involves the creation of organizations similar to those of the specialized investment counsel concerns; and such organizations are sometimes operated on a virtually autonomous basis to insure independence of judgment. Some investment houses have organized and manage investment trusts. Some maintain departments to deal in government securities, foreign exchange, bankers' acceptances and commercial paper, and to engage in other specialized financial transactions.

The Securities Act of 1933

PURPOSES OF THE ACT.—The chief purposes of the Securities Act of 1933 are to provide full, fair and accurate disclosure of the character of securities offered for sale in interstate commerce or through the mails, and to prevent fraud in the sale of such securities. The basic

techniques by which disclosure is secured are the filing of a registration statement with the Securities and Exchange Commission and the delivery of a prospectus to the prospective investor.

The Securities and Exchange Commission has no power under the Act to approve or disapprove any security or to pass upon the merits or demerits of any security; and a representation to the contrary is a criminal offense. The Congress considered it essential to refrain from placing on any federal agency the duty of passing judgment upon the soundness of any security. There will be found underlying this statute and other legislation affecting securities and their markets the philosophy that disclosure and publicity are the most effective of all regulatory devices and that the most important safeguard for the investor is to make available to him all the facts necessary to an intelligent appraisal of the value of a security.

It should be borne in mind, however, that the Commission does not guarantee the accuracy of any statement made by an issuer in a registration statement or prospectus. The fact that the Commission has permitted a registration statement to become effective is not a finding that the statement is true and accurate on its face or that it does not contain an untrue or misleading statement or omission.

DEFINITIONS.—As used in the Act many terms are considerably broader in their connotations than when used in common parlance. In determining the applicability of the Act to a particular set of circumstances, the statutory definitions should be consulted. A few of the most important definitions are:

1. The term "security" means any note, stock, treasury stock, bond, debenture, evidence of indebtedness, certificate of interest or participation in any profit-sharing agreement, collateral-trust certificate, preorganization certificate or subscription, transferable share, investment contract, voting-trust certificate, certificate of deposit for a security, fractional undivided interest in oil, gas, or other mineral rights, or, in general, any interest or instrument commonly known as a "security," or any certificate of interest or participation in, temporary or interim certificate for, receipt for, guarantee of, or warrant or right to subscribe to or purchase, any of the foregoing.
2. The term "sale," "sell," "offer to sell," or "offer for sale" includes every contract of sale or disposition of, attempt or offer to dispose of, or solicitation of an offer to buy, a security or interest in a security, for value; except that such terms do not include preliminary negotiations or agreements between an issuer and any underwriter.
3. The term "issuer" means every person who issues or proposes to issue any security.
4. The term "underwriter" means any person who has purchased from an issuer with a view to, or sells for an issuer in connection with, the distribution of any security, or participates or has a direct or indirect participation in any such undertaking, or participates or has a participation in the direct or indirect underwriting of any such undertaking; but such term does not include a person whose interest is limited to a commission from an underwriter or dealer not in excess of the usual and customary distributors' or sellers' commission. Under this definition the term "issuer" includes, in addition to an issuer, any person directly or indirectly controlling or controlled by the issuer, or any person under direct or indirect common control with the issuer.

The question of what constitutes "distribution" for the purpose of defining an underwriter sometimes presents difficulties. While the word "distribution" is not defined, it is clearly synonymous with the term "public offering" used in other provisions of the Act. If the offering is private, no distribution is involved within the meaning of the Act, the purchaser is not deemed to be an underwriter, and the registration requirements are not applicable. Criteria for distinguishing between a public offering and a private offering are discussed at a later point.

Distribution has been held to comprise the entire process by which a block of securities is dispersed and ultimately comes to rest in the hands of the investing public. Hence, in determining whether a distribution is involved, it is necessary to consider not merely the specific transaction between the issuer and its immediate purchaser, but also the extent to which a later public offering of the same securities is likely.

Being synonymous with "public offering," distribution implies an offering of a substantial amount of securities to a substantial number of persons. A predetermination of the precise amount to be publicly dispersed is not, however, an essential element of distribution. If the total amount publicly dispersed is substantial, a distribution may be involved notwithstanding that the securities are sold in relatively small lots over an extended period of time.

Whether a purchase is made with a view to distribution or investment must be ascertained in any given case by reference to the intention of the purchaser. What his intention was at the time of purchase is a question of fact. A state of mind can ordinarily be ascertained only by weighing the evidence, and a person's actions may be of far greater weight than his statements in illuminating his state of mind. The primary factor to be weighed in ascertaining the purchaser's intention is undoubtedly the length of time elapsing between acquisition of the securities and their resale. Although retention of securities for any length of time is not conclusive, it is obvious that the longer securities are held, the easier it is to maintain that they were originally purchased for investment. If they are retained for as long a period as a year, that fact creates a strong inference that they were purchased for investment.

A further factor which may be of importance in determining whether a purchase is made with a view to distribution or for investment is the nature of the purchaser's business. Where the purchase is made by an institutional investor or by an individual or firm not engaged in the securities business, the purchaser is in a stronger position to contend that he has purchased for investment than if he is engaged in underwriting or dealing in securities. Where the purchaser is an underwriter or dealer, he would be required to show by the clearest kind of evidence that the scope and character of his business is consistent with the purchase of large blocks of securities for investment rather than with a view to distribution.

As has been noted, the term "underwriter" includes not only one who purchases from a corporate issuer with a view to distribution, but also one who purchases from a controlling stockholder with a view to distribution. The policy of the Act, to provide for full disclosure of every material element attending a distribution, extends not only to the distribution of a new issue but to a redistribution of outstanding securities

which takes on the characteristics of a new offering by reason of the control of the issuer possessed by the person making the offering. In order fully to effectuate this policy, the Act adopts the principle that a controlling stockholder is an issuer for the purpose of defining an underwriter and that any person who effects a distribution for a controlling stockholder is an underwriter. The result is to require registration in connection with secondary distributions through underwriters by controlling stockholders.

It should be noted, however, that a controlling stockholder is not an issuer, within the meaning of the Act, for any purpose except to define an underwriter. For example, he cannot satisfy the requirement that the registration statement be signed by the issuer.

The concept of control does not depend upon a mathematical formula of 51% of voting power. The Commission has defined the term "control" to mean the possession of the power to direct or cause the direction of the management and policies of a corporation, whether through the ownership of voting securities, by contract, or otherwise. A practical test for control, as the term is used in the section defining an underwriter, is whether the stockholder has power to obtain registration, either alone or acting in concert with other related persons. In this connection it should be borne in mind that where a stockholder seeks to obtain registration by the corporation in order to qualify his own securities for a public offering, it is incumbent upon him to offer to bear the expense of such registration. Consequently, the true practical test for a controlling stockholder is whether he is in a position to induce the management to prepare and file a registration statement, where all the expenses are to be paid by the stockholder himself. Any stockholder in a position to accomplish this is a controlling stockholder, so that any person who undertakes to effect a distribution for him is an underwriter.

REGISTRATION PROCEDURE.—Any security may be registered with the Commission by filing a registration statement in triplicate, one copy of which must be signed by the issuer, its principal executive officers, its principal financial officer, its comptroller or principal accounting officer, and the majority of its board of directors.

A registration statement must be on the form prescribed by the Commission; but a statement is deemed to be on the proper form unless objection is made by the Commission prior to the effective date. Since its creation, the Commission has consistently sought to simplify registration forms. The evolution of these forms has been such as to indicate a desire to achieve the fairest possible balance between a maximum of protection to investors and a minimum of difficulty to issuers. The Commission has promulgated a series of optional forms—the "S" series—which simplify the preparation of registration statements and cut down the expense involved, without sacrificing any information that an investor should have.

Registration forms require information only as to the registrant, unless the context clearly shows otherwise. Information need be given only insofar as known or reasonably available to the registrant. If any required information is unknown and not reasonably available, either because the obtaining thereof would involve unreasonable effort or expense or because it rests peculiarly within the knowledge of another person not in a controlling relationship with the registrant, such infor-

mation may be omitted so long as the registrant gives whatever information it possesses or can readily obtain on the subject.

Where a summary or an outline of the provisions of any document is required, the answer must be brief. It is not intended that a statement shall be made as to all the provisions of the document, but only as to the most important provisions in condensed form.

Confidential treatment will be accorded to the provisions of any material contract if the Commission determines that its disclosure would impair the value of the contract and is not necessary for the protection of investors.

At the time of filing a registration statement, the registrant must pay to the Commission a fee of one one-hundredth of 1% of the maximum aggregate price at which the securities are proposed to be offered, but such fee may not be less than $25. Where securities are to be offered at the market, the registration fee is based upon the price at which securities of the same class were sold within 15 days prior to the filing. A filing date is not obtained unless the registration statement is accompanied by the required fee; but an insignificant deficiency based on a bona fide error does not affect the date of filing.

The information contained in a registration statement is available for public inspection, and photocopies are furnished to anyone upon the payment of prescribed charges, which are moderate. Contents of the registration statement are available to the public prior to the effective date, as well as thereafter.

The effective date of a registration statement is the 20th day after the filing thereof. By an amendment adopted in 1940, the Commission is authorized to shorten this 20-day period if it determines that acceleration may be granted with due regard to the adequacy of information respecting the issuer previously available to the public; to the ease with which prospective investors can understand the nature of the securities to be registered, their relationship to the capital structure of the issuer, and the rights of holders; and to the public interest and investor protection.

Until the effective date it is unlawful for any person, directly or indirectly, to use the mails or the channels of interstate commerce to sell or offer to buy the security through the medium of a prospectus or otherwise; or to carry the security or cause it to be carried, through the mails or the channels of interstate commerce for the purpose of sale or for delivery after sale. The period between the filing date and the effective date is colloquially referred to as the **cooling period.**

Filing of a pre-effective amendment to the registration statement automatically changes the filing date of the registration statement to the filing date of the amendment and thus starts the cooling period running anew, unless the Commission orders otherwise. When the registrant believes that its amendment is adequate to cure all deficiencies it may make application for the Commission's consent to the filing of the amendment as if it were part of the registration statement as originally filed, so that the cooling period does not begin anew. The grounds of the application must be fully stated and, upon the entry by the Commission of an order to that effect, the amendment is treated as part of the registration statement and the effective date is not delayed.

This power of acceleration has been developed by the Commission into an important administrative device. While the Commission has no

authority to pass upon the merits of a security, it can, by calling for delaying amendments, put off the effective date more or less indefinitely. Where a statement no longer contains any deficiencies, however, it is mandatory on the Commission to permit it to become effective.

Amendments to the registration statement may be filed by the registrant at any time, either prior to or after the effective date. Pre-effective amendments are generally filed to prevent the registration statement from becoming effective in deficient form, which would give the Commission a basis for instituting stop order proceedings. The issuance of a stop order by the Commission suspends the effectiveness of the registration statement until such time as the Commission declares that the statement has been amended in accordance with the stop order. In the interim the stop order serves to prevent the use of the mails and the channels of interstate commerce in the distribution of the security.

Post-effective amendments are generally filed to correct deficiencies which existed in the registration statement at the effective date but were not discovered until afterward. Theoretically, a post-effective amendment is not filed in order to correct a statement which reflected the truth on the effective date but is no longer true. In practice, however, the Commission sometimes permits the filing of a post-effective amendment to the registration statement to cover matters arising after the effective date. Under the Act, the truth of a statement is tested as of the effective date. If the statement was deficient at the effective date, the registrant is under an obligation to correct the deficiency regardless of when the deficiency is discovered. But if the statement was not deficient at the effective date, no subsequent change in circumstances will make it compulsory for the registrant to file a post-effective amendment. On the other hand, a subsequent change in circumstances which renders the information no longer true in a material respect does require an amendment to the prospectus. The offering of a security cannot be continued on the basis of a prospectus which contains representations that are no longer true in a material respect.

Since post-effective amendments do not become effective until the Commission declares them effective, it is usually advisable that no offers to sell be made until the Commission so declares, or if the offering has begun, that it be stopped immediately. The purpose of the post-effective amendment being to correct a deficiency which existed at the effective date, any sales made before the Commission's order is entered may lead to stop orders and civil suits.

Before a registration statement has become effective, the registrant has an absolute right, not subject to administrative discretion, to withdraw it. Where the statement has become effective and sales have been made thereunder, or where the registrant fails to demonstrate that no sales have been made thereunder, the withdrawal of registration is within the discretion of the Commission. Under such circumstances, the test for the right of withdrawal is the absence of prejudice to the public or to investors. Where securities have been offered or sold to the general public, the Commission usually takes the position that it will not permit withdrawal but will enter a stop order, since the latter course gives the widest possible publicity to the deficiencies.

THE PROSPECTUS.—Because the prospectus is the part of the registration statement which is most generally furnished to investors, the

Commission has repeatedly urged the use of a concise and readable document. The registration forms specify material which may be omitted from or condensed in the prospectus, and the Commission has published opinions specifically illustrating what it regards as excessively detailed prospectuses. The prospectus is meant to be an epitome or summary, and obviously should not be as discursive as the longer registration statement. The Commission's efforts to encourage the simplification of prospectuses have not been generally successful. The reluctance of issuers and underwriters to simplify prospectuses may well be based upon a false premise. Persons who lend their names to a registration statement and prospectus fear that in the event of their compliance with the Commission's rules and instructions, they may nevertheless be subjected to liability in a civil action to which the Commission is not a party. The Act, however, specifically states that no provision imposing any liability shall apply to any acts done or omitted in good faith in conformity with any rule or regulation of the Commission. Consequently, the condensation and simplification of the prospectus in good faith, in accordance with the Commission's rules, should prevent any civil liabilities from arising.

The privilege of condensation and simplification does not extend to financial statements. Such financial statements as are set forth in the prospectus must conform exactly with the corresponding financial statements, including footnotes, in the registration statement. The supporting schedules may be omitted from the prospectus, with a few exceptions specified in the Commission's rules and instructions.

Every prospectus is required to set forth the following legend in bold face on the front page:

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION.

.....(insert name of issuer) has registered the securities by filing certain information with the Commission. The Commission has not passed on the merits of any securities registered with it.

IT IS A CRIMINAL OFFENSE TO REPRESENT THAT THE COMMISSION HAS APPROVED THESE SECURITIES OR HAS MADE ANY FINDING THAT THE STATEMENTS IN THIS PROSPECTUS OR IN THE REGISTRATION STATEMENT ARE CORRECT.

In case the registrant or any of the underwriters knows or has reasonable grounds to believe that it is intended to stabilize the price of any security to facilitate the offering of the registered security, the first or second page of the prospectus must set forth in bold type a legend to that effect.

When a prospectus is used more than thirteen months after the effective date, the information must be as of a date not more than 12 months prior to such use, so far as such information is known to the user of the prospectus or can be furnished by such user without unreasonable effort or expense.

The Act makes it unlawful for any person to use the channels of interstate commerce or the mails to carry or transmit a prospectus relating to a registered security unless such prospectus meets the statutory requirements. Except where the transaction is exempted by the Act, it is unlawful for any person to cause a registered security to be carried through the mails or in interstate commerce for the purpose of sale or

delivery after sale, unless accompanied or preceded by a proper statutory prospectus.

These prohibitions are readily understood in their bearing upon the prospectus in ordinary use—the selling circular designed to be delivered to prospective purchasers after a registration statement has become effective. What is less generally understood is that many types of communications not commonly regarded as prospectuses are within the statutory definition of the term. The Act defines a prospectus to include any notice, circular, advertisement, letter or communication, written or by radio, which offers a security for sale. It is a question of fact in each case as to whether a communication offers a security for sale. The definition excludes a communication if, prior to or at the same time with the communication, the maker of the communication sends a proper statutory prospectus to the prospective purchaser. This exception makes it lawful for a dealer, after he has opened negotiations with a prospective purchaser by supplying him with a proper prospectus, to give him such additional information as the dealer may deem desirable. The additional literature, of course, must be free from false or misleading information.

The definition of a prospectus also excludes a notice, circular, advertisement, letter or communication which does no more than identify the security, state the price, state by whom orders will be executed, and state from whom a statutory prospectus can be obtained. This last exemption is the basis for the so-called "tombstone prospectus," discussed above.

EXEMPTED SECURITIES.—The Act provides for two general types of exemptions—exemption of certain types of securities from all except the fraud provisions, and exemption of certain types of transactions from the registration and prospectus requirements.

Types of securities exempted from all the provisions of the Act, except the fraud provisions, include:

Securities issued or guaranteed by the United States or any State or Territory thereof, or any political subdivision of a State or Territory, or any public instrumentality of one or more States or Territories, or any National or State bank.

Commercial paper arising out of current transactions and having a maturity at the time of issuance of not more than nine months.

Securities issued by nonprofit organizations.

Securities issued by building and loan associations and similar institutions, provided that the issuer does not take more than 3% of the face value of the security as a withdrawal fee.

Securities issued by common carriers.

Certificates issued by a receiver or by a trustee in bankruptcy, with court approval.

Insurance policies and annuity contracts.

Securities issued in reorganizations approved by a court or governmental authority.

Securities exchanged by the issuer with its existing security holders exclusively where no commission or other remuneration is paid or given, directly or indirectly, for soliciting the exchange.

Securities which are part of an issue sold only to residents of the State in which the issuer is incorporated and is doing business.

In addition, the Commission is authorized by the Act to exempt securities if the aggregate amount at which the issue is offered to the public does not exceed $300,000. These exemptions for small offerings are not

unconditional but are available only if regulations prescribed by the Commission are complied with.

EXEMPTED TRANSACTIONS.—The provisions of the Act exempting certain types of transactions from the registration and prospectus requirements broadly draw the line between the distribution of securities and trading in securities, indicating that the Act is, in the main, concerned with the problem of distribution as distinguished from trading.

Transactions by Persons Other Than Issuers, Underwriters and Dealers.—An exemption is provided for transactions by any person other than an issuer, underwriter or dealer. The holder of a block of securities who is not an issuer, underwriter or dealer is free to make a public offering of his holdings without regard to the registration or prospectus provisions. It should be remembered, however, that the term "issuer" includes a controlling stockholder of the corporation for the purpose of defining an underwriter. Where a controlling stockholder desires to liquidate his holdings through a dealer, neither can safely rely upon this exemption.

Private Offerings.—A further exemption is provided for transactions by an issuer not involving any public offering. The distinction between a private offering and a public offering is sometimes difficult to draw.

In the view of the Commission, the two types of offerings cannot be distinguished on the basis of a quantitative test alone. The principal factors to be considered in determining whether a particular transaction involves a public or a private offering are:

1. The number of offerees and their relationship to each other and to the issuer.
2. The number of units offered.
3. The size of the offering.
4. The manner of offering.

1. The number of offerees does not mean the number of actual purchasers, but rather the number of persons to whom the security is offered for sale. Any attempt to dispose of a security is regarded as an offer. Even preliminary negotiations or conversations with a substantial number of prospective purchasers may cause the offering to be a public offering, although the number of actual purchasers is relatively few.

Again, the relationship of the offerees to each other and to the issuer must be considered. An offering to a given number of persons chosen from the general public may be a public offering, while an offering to a larger number of persons having special knowledge of the issuer may be a private offering. For instance, when the offering is limited to institutional investors, they are more likely to have special knowledge of the issuer than the general public. Other groups that may fall within the category of persons having special knowledge of the issuer include its officers, employees and substantial stockholders, its creditors, underwriters, bankers, and promoters, and the relatives, friends, and business associates of the management.

2. The second factor to be considered in determining whether a public offering is involved is the number of units offered. If the denominations of the units are such that only a small number of units are offered, presumably no public offering would be involved. But where many units

are offered in small denominations, there is some indication that the issuer recognizes the possibility, if not the probability, of a general public distribution.

3. The third factor is the size of the offering. The exemption was intended to be applied chiefly to small offerings. The sale of a small issue is less likely to involve a public offering than the sale of an issue of substantial size.

4. The final factor is the manner of offering. Transactions effected by direct negotiation between the issuer and the prospective purchasers are much more likely to be nonpublic than those effected through the use of the machinery of public distribution. An offering on the floor of a stock exchange is a public offering, as is any offering addressed to the public generally.

Transactions by Dealers.—A further exemption is provided for transactions by a dealer after the expiration of one year from the first date upon which the security was bona fide offered to the public. For the purposes of this exemption, an underwriter who has sold out his allotment is in the same position as a dealer. On the other hand, the unsold portion of the allotment of either a dealer or an underwriter does not receive the benefit of the exemption even after the expiration of one year from the initial public offering.

Brokers' Transactions.—The last category of transactions for which an exemption is provided consists of brokers' transactions executed upon customers' orders, but not the solicitation of such orders. The term "brokers' transactions" has been strictly limited to transactions in which no more than the ordinary brokerage function is performed and no more than the ordinary commission is paid. Thus, if the broker forms a selling group to distribute the security, advertises the security for sale, prepares a selling circular, or does any of the other things which are normally associated with the underwriting function, he loses the benefit of the exemption. Moreover, this exemption applies only where the order is unsolicited. Any direct or indirect solicitation of the order prevents the exemption from becoming applicable. The exemption does not apply to the customer's part of the transaction; it protects only the broker who receives an unsolicited commission order.

SANCTIONS.—There are four main types of sanctions which supply the Act with teeth. These are the provisions for stop orders, injunctions, criminal penalties, and civil liabilities.

Whenever it appears to the Commission that the registration statement includes any untrue statement of a material fact or any misleading omission of a material fact, the Commission may, after an opportunity for hearing, enter a stop order suspending its effectiveness. The purpose of a stop order is to prevent the use of the mails and the channels of interstate commerce in the distribution of a security on the basis of false, untrue, or misleading information; and also to warn the investing public of the false or misleading character of the representations on the basis of which the security is or has been offered for sale. Jurisdiction to issue a stop order arises only where deficiencies relate to material facts. A material fact is one concerning which an average prudent investor ought reasonably to be informed before purchasing the security. In a stop-order proceeding, the truth or falsity of a statement alone is

in issue, regardless of the good faith of the parties, except when information is called for only if known. Willfulness is not essential to the issuance of a stop order.

Whenever it appears to the Commission that any person is engaged or about to engage in a violation of the Act, or of any rule of the Commission thereunder, it may apply to the federal courts for an injunction against such violation. In addition, the Commission may transmit the evidence of any violation to the Attorney General, who is authorized, in his discretion, to institute criminal proceedings against the violators. Any person who willfully violates the Act or the rules of the Commission, or who willfully makes any untrue statement or omission in a registration statement is guilty of a crime and may, upon conviction, be fined not more than $5,000 or imprisoned not more than 5 years, or both.

False or misleading statements or omissions as to material facts in the registration statement give rise to civil liabilities under the Act. Any purchaser of the security, who, at the time of his purchase, was unaware of the untruth or omission, has the right to sue any of the following persons:

Every signer of the registration statement;
Every director who was serving as such when the registration statement was filed or who was named in the registration statement as about to become a director with his consent;
Every accountant, engineer, appraiser, or other expert who has consented to be named as having prepared or certified any part of the registration statement or any report or valuation used in connection with the statement; and
Every underwriter.

Any person so sued, except the issuer, may exonerate himself from liability by proving the following:

That before the effective date he resigned from the position described in the registration statement and advised the Commission and the issuer that he had taken such action; or
That he advised the Commission that the registration statement had become effective without his knowledge and also gave reasonable public notice to that effect; or
That as regards any part of the registration statement not purporting to be made on the authority of an expert, he made reasonable investigation and had reasonable grounds to believe, when the statement became effective, that such part was truthful and not misleading; or
That as an expert, he believed that the part of the registration statement prepared or certified by him was truthful and not misleading at the effective date, or that the registration statement did not fairly represent his statement as an expert.

The damages in such a suit may not exceed the price at which the security was offered to the public.

Finally, civil liabilities may arise in connection with prospectuses and other communications. Any person becomes liable in a civil suit if, through the mails or in interstate commerce, he sells or offers to buy an unregistered nonexempted security, or uses a defective prospectus relating to a registered security, or fails to deliver a prospectus prior to the sale of a registered security, or sells any security, registered or unregistered, exempt or not exempt, except government securities and bank stocks, by a false or misleading prospectus or oral communication. Any

such person is liable to the purchaser for the full amount of the purchase price of the security or, if the purchaser no longer owns the security, for damages.

Blue Sky Laws

HISTORICAL BACKGROUND.—The term "blue sky law" is popularly applied to state statutes designed to protect investors from fraudulent security offerings. Prior to the general adoption of such laws, unscrupulous promoters reaped a harvest among the gullible with fantastic projects. The sky was the only limit to their claims; and, indeed, they did not hesitate to exploit the profit-making potentialities of the blue sky itself.

Legislation governing the issuance of securities was adopted in continental Europe by the beginning of the twentieth century, and in Great Britain at the turn of the century. Prior to 1911, however, no American state had adopted a general law on the subject, although railroad and public utility issues were regulated in some cases. The first blue sky law was enacted in Kansas in 1911. It required issuers—designated as "investment companies"—to file a full description of their business, and prohibited their selling securities in the state until and unless authorized by the bank commissioner. During the first year of its operation approximately 1,500 applications for permits were filed, of which about 75% were rejected as fraudulent and about 11% as too speculative. In rapid succession, 18 other states adopted similar statutes. Steps were taken to test the constitutionality of the laws in some states. Courts in Michigan, Iowa, and West Virginia declared their respective blue sky laws unconstitutional, largely because the statutes were impractical and hastily drafted. In 1917, however, the United States Supreme Court in a series of decisions held the blue sky laws of Ohio, South Dakota, and Michigan constitutional as a proper exercise of the police powers of the states. Today, every state except Nevada has some type of securities statute.

Although the United States Supreme Court sustained the constitutionality of blue sky laws enacted by the several states, there were limits upon the ability of a state to regulate the sale of securities within its borders from a point outside the state through use of the mails or instrumentalities of interstate commerce. As a consequence, fraudulent promoters during the 1920's resorted to the device of establishing a base in one state from which telephone and telegraph communications and letters were transmitted to prospective victims residing in other states. The inability of state enforcement agencies to cope with fraudulent interstate transactions was a major factor leading to adoption of the Securities Act of 1933 and the Securities Exchange Act of 1934.

Neither the Securities Act of 1933 nor the Securities Exchange Act of 1934 was designed to interfere, in any way, with the operations of state blue sky laws. Each state has police power which it may exercise for the protection of its people and which, but only incidentally and indirectly, may impose burdens on interstate commerce. The federal government, within the scope of its authority, has police power over interstate commerce, which may, but only incidentally and indirectly, impose burdens on state commerce. The Securities Act of 1933 specifically provides that nothing in the Act shall affect the jurisdiction of the securities commission of any state over any security or any person.

TYPES OF BLUE SKY LAWS.—Some state securities statutes require the registration or licensing of dealers, brokers, and other distributors; others require the registration of securities; and a few are of the anti-fraud type, which simply prescribe penalties for the fraudulent sale of securities and provide for injunctive proceedings to protect the public from fraud or threatened fraud. In the great majority of states, the statutes combine the first two types of regulation.

Registration or Licensing of Dealers, Brokers and Other Distributors.—In 39 states, the blue sky laws prescribe registration or licensing of dealers and/or brokers. A dealer is generally registered or licensed upon a satisfactory showing that he is of good repute and financially responsible, that the proposed plan of business is not unfair or inequitable, that the applicant intends to conduct his business honestly and fairly, and that the securities which he proposes to distribute will not work a fraud on purchasers. The laws also seek to elicit sufficient information to enable prospective purchasers to form a judgment of the nature and value of the securities to be offered by distributors. Provision is usually made for the filing of information which enables administrative agencies to keep the activities of dealers and brokers under scrutiny, and to locate them if and when their presence is desired.

In 21 of these 39 states, dealers and/or brokers are required to file bonds as a condition of registration. the amounts ranging between $5,000 and $25,000. In some states, satisfactory proof of financial responsibility is accepted in lieu of the filing of a bond.

Under some laws, the administrative agency is authorized to require a registrant at any time to file a list of securities which have been offered or are being offered for sale, together with advertising circulars and any pertinent facts concerning the securities which will enable the administrative agency to investigate the offering.

Registration or licensing fees range between $1 and $100, averaging about $39. In most states the registration or license expires annually, and the fee, or some portion of it, must be paid annually.

In some states, such as New York, registration is accomplished by the simple filing of a statement containing a limited amount of information respecting the dealer or broker. In other states it is not accomplished until the administrative agency issues a certificate of registration, license or permit, as the law prescribes. In several states a separate permit must be obtained by the dealer or broker in connection with each issue of securities which he proposes to sell.

The laws generally include in the definition of "dealer" any individual, firm or corporation engaged in selling or offering securities for sale. Foreign dealers are usually required to file a consent to service of process on the administrative agency in any action arising from the sale of securities in the state.

In 42 states the laws require some form of registration or licensing of individual salesmen, agents, and solicitors. Individual registration or licensing fees range from $1 to $15, in most states payable annually for renewal of registration. In 6 states bonds must be filed by salesmen, agents and solicitors as a condition to registration or licensing, ranging in amount from $500 to $5,000.

The administrative agency is generally vested with authority to cancel or revoke the registration or license of a dealer, broker or agent for

proper cause, after reasonable notice and opportunity for hearing. It is also authorized to apply for an injunction restraining any person from engaging in any fraudulent practice or committing any act in violation of the blue sky law, and to apply for an indictment against any person who has violated the law.

Occasionally a state has manifested a tendency, through the registration or licensing device, to protect local dealers and brokers from out-of-state competition. This is done by imposing a requirement that an applicant for registration or licensing must have been regularly engaged in business within the state for not less than a prescribed period of time. Such requirements have been sharply criticized upon the ground that the purpose of the blue sky laws is to protect the public against fraud and not to protect the local dealer against competition; and upon the further ground that no artificial barriers should be imposed upon the free flow of legitimate securities into all parts of the country.

Registration of Securities.—In 43 states, the blue sky laws require the registration of securities before they may be sold within the respective borders of such states. These laws usually make it unlawful for a person, firm or corporation, either as principal or through brokers or agents, to offer securities for sale without the filing of certain information with the administrative agency of the state.

Registration requirements of the blue sky laws are of two kinds: registration by notification and registration by qualification. Registration by notification is limited to certain classes of securities, such as securities of "going concerns" which have been in continuous operation for a prescribed period (usually from two to five years), with net income exceeding a prescribed amount, and/or with a prescribed amount of net assets; issues secured by first mortgages on real estate; issues secured by first liens on pledged collateral meeting statutory requirements; and a few miscellaneous categories of securities. The procedure for registration by notification usually requires the filing of a statement containing the name and address of the issuer; a brief description of the securities; the amount of the issue and the amount to be offered in the state; the offering price; a copy of the prospectus; and a statement of facts showing that the issue is entitled to registration by notification. The filing of this information, accompanied by proper fee, constitutes registration, and then the security may be sold in the state without a permit.

Registration by qualification is required of all securities which are neither exempt nor entitled to registration by notification under the law. The procedure for registration by qualification requires the filing of an application which embodies not only the information required for registration by notification, but also statements, exhibits and documents concerning the issuer's business in far greater detail. The applications are examined by the administrative agency to determine whether the sale of securities would be fraudulent or would tend to work a fraud. The securities may not be sold until a specific permit is granted or until an entry is made in the Register of Securities. In a few states, provision is made for the sale of securities pending qualification, usually upon condition that the proceeds of sale be escrowed until the securities have been qualified, the money to be returned if qualification is refused. Some registrations expire at the end of one year and others when the amount of securities covered by the application has been sold.

Anti-Fraud Laws.—In four states, Delaware, Maryland, New Jersey, and New York, there has been a drift away from the type of securities law which requires information as to the security in advance of the offering. The drift has been toward the anti-fraud law, which is distinguished from the ordinary blue sky law in that the enforcement agencies are authorized not to regulate the sale of securities in advance but rather to enjoin fraud or threatened fraud and to prosecute the perpetrators of fraud in security sales. A state official, usually the attorney general, is vested with broad powers to investigate any security or security transaction which appears to be fraudulent. For this purpose, he has the power of subpoena to examine documents and question witnesses, and may bring proceedings to enjoin the sale of securities or may institute criminal proceedings to punish violations of the law.

EXEMPTIONS UNDER BLUE SKY LAWS.—Most blue sky laws provide for the exemption of certain types of securities and transactions from the statutory requirements. Spotted through the various laws are found about 23 types of securities which are entirely exempt from the operation of the respective laws. The most important, from the standpoint of the frequency with which they appear in the various laws, are securities of certain types of issuers and securities having certain qualifications, as follows:

Banks.
United States and Territories.
States and political subdivisions.
Real property mortgage bonds or notes.
Trust companies.
Public utilities and railroads.
Securities listed on exchanges.
Foreign governments and their public taxing subdivisions.
Corporations organized under Acts of Congress.
"Legal" investments.
Securities issued in mergers or reorganizations to existing security holders or creditors.
Domestic corporations.
Insurance companies.
Building and loan associations.
Cooperative associations.
Securities outstanding for a specified term with no defaults in principal or interest.
Public utility holding corporations.
Nonprofit organizations.
Securities listed in standard manuals.

Not every state blue sky law contains all these exemptions. In order to determine whether a particular security is exempt, it is necessary to consult the blue sky law of the state in which the security is to be offered.

Virtually every blue sky law exempts isolated sales by or for the account of the owner of securities, where such owner is neither an issuer, underwriter, nor promoter. This exemption may be lost if such sales are part of repeated transactions of a like character, so that there is, in effect, a distribution rather than an isolated sale. Many of the laws also exempt the issuance of stock dividends and sales of additional blocks of stock to existing stockholders. Other types of transactions exempted include judicial sales, receivers' and trustees' sales, and sales made

exclusively to banks, insurance companies, trust companies and other institutional investors, or to professional securities dealers.

SANCTIONS UNDER BLUE SKY LAWS.—In virtually all states the administrative agency is vested with authority to suspend or prohibit the sale of any security if it appears that such sale would be fraudulent or would result in fraud. It is frequently provided that every sale or contract of sale made in violation of the statute is voidable at the election of the purchaser, who is entitled to recover from the seller the full amount of the purchase price with interest. Some statutes provide that sales made for an insolvent issuer render the seller guilty of embezzlement.

Lack of uniformity in blue sky legislation imposes a considerable burden upon legitimate issuers, underwriters, and dealers. There has been some effort on the part of the state authorities to achieve greater uniformity. The National Association of Securities Administrators, an organization of officials administering state securities laws, has drafted a uniform application form for qualification of certain securities which has thus far been adopted by 12 states and, with some variation, by 2 others. An issuer desiring to qualify securities of the designated types in these states prepares the same application form for each. In a growing number of states the registration statement or prospectus filed under the Securities Act of 1933 is accepted as compliance with the blue sky law.

SECTION 2

SECURITIES MARKETS

CONTENTS

PAGE

Organization and Functions

Nature of securities markets..... 65
Functions of securities markets..... 65
Auction vs. negotiated markets..... 66
Organized securities exchanges..... 66
Over-the-counter markets 67
Brokers and dealers 68
Marketability 68
Closeness of a market 69
Breadth of the market 69
Continuity of the market 69
Market stability 69

The New York Stock Exchange

Organization 69
Membership 71
Types of exchange members..... 72
Listing securities on the exchange.. 74
Listing policy 75
Motives for listing 75
Listing statements 76
Striking from the list and withdrawal of registration 76
Unlisted trading on exchanges..... 76
Trading facilities 77
Methods of trading 78
Publicity for quotations—ticker service 78
Sections of New York Stock Exchange stock ticker tape (*f.* 1) 79

Securities Trading on Exchanges

Securities transactions 80
Types of orders 80
Market orders 80
Limited orders 81
Stop-loss orders 81
Stopping stock 81
Execution of orders on the exchange 82
Brokerage commissions on stocks... 82
Transfer taxes and federal registration fees 83
Stocks selling ex-dividend or exrights 84
Trading in rights and stock purchase warrants 85
When-issued trading 85
Trading on exchanges 86
Special offerings and secondary distributions 87

PAGE

Short Sales, Odd-Lots and Options

Meaning of short sales 88
Operation of a short sale 89
Loaning rates 89
Margins deposited against short sales 90
Economic effects of short selling.... 90
Corners and manipulation 90
Federal regulation of short selling.. 91
Odd-lot trading 92
Dealing in options or privileges..... 93
Purpose of privileges 94

Speculation in Securities

Differentiation of speculation from investment 95
Advantages and disadvantages of security speculation 95
Advantages 95
Disadvantages 96
Prevention of pool operations and manipulation 96
Indices of security prices 97
The Dow theory of stock price movements 98
Stock market charts and tape readers 98
Security services and ratings 99

Settlement of Exchange Transactons

Stock exchange settlement procedure 100
Steps in settlement 100
Comparison of transactions 100
Security clearance 101
Actual delivery of securities..... 101
Clearance and settlement of the money values of security deliveries 101
What constitutes good delivery..... 101
Consequences of failure to deliver.. 102

The Commission House

Organization of a brokerage house... 102
Registered employees 103
Customers' statements 103
Typical form of customer's statement (*f.* 2) 104

PAGE

Trading on Margin

Margin purchase of securities..... 105
Opening a margin account..... 105
Customers' margin requirements.. 106
Regulation of loans on listed securities 106
Relations between broker and customer 107
Brokers' interest charges 108

Financing Customers' Accounts

Financing the brokerage business.... 109
Balance sheet of a brokerage house (*f.* 3) 110
Sources of funds for brokers..... 110
The hypothecation agreement..... 111
Other methods of obtaining brokerage funds 111
Restrictions on broker borrowing.... 112
Examination of member firms..... 112

Bond Trading on the Exchange

The "bond crowd" 112
What constitutes good delivery..... 113
Commissions and taxes on bond transactions 114
Bond quotations 114
Sections of New York Stock Exchange bond ticker tape (*f.* 4). 115

PAGE

Over-the-Counter Markets

Functions and importance..... 114
Classes of securities traded..... 116
Method of trading—negotiation..... 116
An actual transaction 117
The unlisted bond market..... 118
Self-regulation and the National Association of Securities Dealers..... 118

Federal Regulation of Securities Trading

The Securities Exchange Act of 1934 120
Objectives of the act..... 120
Chief provisions of the act 121
Registration of securities 121
Registration of exchanges 121
Registration of broker-dealers ... 121
Administration of the Exchange Act 122
Registration of securities..... 122
Regulation of trading—fair and orderly markets 125
Regulation of brokers and dealers 129

International Dealings in Securities

Investment in foreign securities..... 133
International security trading..... 133
Distribution of blocks of foreign issues 134
Arbitrage in securities 135
Arbitrage calculations 135
Arbitrage between New York and London 136

SECTION 2

SECURITIES MARKETS

Organization and Functions

NATURE OF SECURITIES MARKETS.—Securities markets are places where securities, stocks, and bonds of all types are bought and sold. Here the constantly changing forces of supply and demand, reflecting ever-shifting appraisals of the worth of securities, personal requirements of individual investors and traders, and the speculative psychology of the moment, set quotations for bond and stock issues. Here buyers and sellers can "meet" for their mutual advantage, enjoying the facilities of a well-organized market place.

Discussion of the issuance and distribution of new offerings of securities is more properly covered under the subject of security selling. This section deals with trading in all types of outstanding securities. These may be classified according to issuer—**governments** include obligations of the United States, the states and their municipalities, and other political subdivisions such as school, sanitation, and park districts, and foreign governments. **Corporates** include stocks and bonds of utilities, industrials, railroads, finance companies, insurance companies, real estate enterprises, etc. The securities comprise stocks, preferred and common, certificates of beneficial interest in trusts, and debt obligations with their different rights, privileges, and priorities.

FUNCTIONS OF SECURITIES MARKETS.—The primary function of a securities market is to provide a meeting place for buyers and sellers. But more important than the mere mechanical facilities for trading is the creation of a real market in which securities can be actively bought and sold in quantity. There must be substantial demand or buying power on one side, and on the other a considerable supply of desirable securities before a market in which **prices are set in a fair and orderly manner** may be said to exist. To fulfill this most important function, the market must provide adequate information to enable participants to appraise values with reasonable accuracy if they have the intelligence and skill to do so. Also, fraudulent activities of buyers and sellers and artificial influences that affect prices, such as manipulation which prevents the unimpeded play of the forces of demand and supply, must be eliminated.

Economically speaking, the function of the securities market is to aid in the mobilization of individual savings to make them readily available to those who have a need for them in industry, trade, finance and government. When marketability is provided for securities, savers are much more likely to make investment commitments. Also, capital

is made mobile when owners of securities can dispose of them to obtain funds for new commitments.

AUCTION VS. NEGOTIATED MARKETS.—The most publicized type of securities market consists of the organized exchanges which do business on an **auction basis.** Here prices are determined by a highly organized machinery for bringing bids and offers together at one place. The balancing of the bids against the offers at ever changing quotations produces a continuously moving equilibrium between demand and supply for a particular security and establishes a **trend of prices.**

A securities exchange is one of the few examples of a true auction market. Here there are auctions on both sides of the market—competing buyers and competing sellers. There is not, however, sufficient activity on all exchanges or in all securities on even the largest exchanges to achieve the ideal of a perfect auction.

The auction method of operation, together with a highly organized publicity system, makes a securities exchange one of the fairest and most orderly markets in the world. Through the stock and news tickers actual sales and information concerning issuing corporations and related matters are broadcast within a few minutes all over the nation. This does much to promote a free and open market for listed securities.

In contrast to this highly organized, swiftly moving, public market are the unorganized **off-the-board, over-the-counter,** or **unlisted** markets, where prices are determined by **negotiation** between individual customers and securities dealers or among securities dealers themselves acting usually for their own account but occasionally as agents. Here there may be much or little **shopping around** for the best price, and there may be considerable higgling before a price is agreed upon. Because there is no central market place, sales prices are unknown. Bid and asked quotations alone receive a limited amount of publicity.

Whether a security is more suitable for exchange or over-the-counter trading is determined chiefly by its purchasers. A security held primarily in portfolios of institutional investors, outstanding in small amount or closely held is generally not suited for active exchange trading. Sales can then be better negotiated in the relatively unorganized over-the-counter markets, where dealers "make markets" and seek out buyers and sellers. This may hold true also of quite large blocks of listed securities, for which an adequate demand is not on hand even in a highly efficient auction market.

ORGANIZED SECURITIES EXCHANGES.—An organized market is one where a formal mechanism exists for bringing buyers and sellers together directly or through their representatives. The most highly organized markets in existence are the **securities exchanges,** which provide a central trading place at which groups of brokers and dealers regularly meet and transact business with one another for their customers and their own accounts. Securities exchanges not only make for "closer" markets (see discussion below) but also provide convenient arrangements for the settlement of transactions, set up rules and regulations governing the conduct and finances of their members, provide publicity for transactions in securities, and, through restrictions on the listing privileges, and requests for filing current information, seek to establish standards for issuers of securities which are traded.

Originally, exchanges were established for trading in commodities and slaves, and records of such organizations are handed down from ancient times. A number of **commodity exchanges** continue to function actively, although war and government intervention have restricted the scope of their activities. Securities began to be traded on European exchanges several centuries ago. The **New York Stock Exchange,** the organization of which as an outdoor market has been traced back to 1792, was the first organization of its kind in this country.

There are 16 national stock exchanges registered with the United States Securities and Exchange Commission under the provisions of Section 5 of the Securities Exchange Act of 1934. As a result of changing economic conditions, small trading volume, and federal regulations, some exchanges have closed or merged with others in recent years. The two largest markets are the New York Stock Exchange and the New York Curb Exchange. Other national exchanges are located in Baltimore, Boston, Chicago, Cincinnati, Cleveland, Detroit, Salt Lake City, San Francisco, Los Angeles, New Orleans, Philadelphia, Pittsburgh, St. Louis, Spokane, and Washington, D.C. In addition, there are four small exempt exchanges that are not registered, located in Honolulu, Richmond, Wheeling, and Colorado Springs. Some of these exchanges specialize in certain types of securities such as oil and gas participation certificates or mining shares.

Practices on these exchanges differ to a considerable extent, reflecting volume of trading and types of securities traded. The New York Stock Exchange, by far the most important security market in the world from the viewpoint of volume of securities traded and value of transactions, sets standards which the others tend to emulate. Because of its importance and more highly developed organization and procedures, the New York Stock Exchange is later discussed in detail.

OVER-THE-COUNTER MARKETS.—Supplementing the highly organized exchanges with their auction markets are the "unorganized" negotiated markets, usually referred to as "over-the-counter markets." The chief differences lie in (1) the character of organization, and (2) the method of doing business. Because bonds are traded for the most part in large blocks by institutional investors, the bulk of the trading is over the counter. In fact, the market for United States Treasury obligations is the most efficient and sensitive in the world, although it is an over-the-counter market.

Over-the-counter markets provide exclusive trading facilities for municipal bonds, railroad equipment trust obligations, most newly issued securities, and thousands of stock and bond issues not listed on exchanges.

The work of the unlisted markets is greatly facilitated by the telephone, leased telegraph wire, and teletype, so that little business is transacted by direct personal contact. Brokers and dealers may participate actively in both organized exchanges and over-the-counter markets.

Publicity is given quotations of important unlisted securities through a central organization of over-the-counter dealers known as the National Association of Security Dealers, which furnishes quotations daily to the newspapers. Published quotations of unlisted securities differ from those of listed issues, however, in that they are restricted to **bid and asked quotations.** rather than actual sales prices.

BROKERS AND DEALERS.—There are two types of professional participants in securities markets—brokers and dealers. Brokers execute orders as agents for customers, receiving a commission for their efforts. Dealers, on the other hand, buy and sell for their own account with the expectation of a profit. Brokers predominate on the securities exchanges, although many members of an exchange act as dealers for their own account in trading among themselves. In the over-the-counter market, on the other hand, dealers play the dominant role.

The distinction between broker and dealer takes on special importance from the **legal standpoint.** In brokerage transactions, the legal relation is one of principal and agent. In the case of dealers, the transactions are covered by the general law of contracts. Thus, a broker can hold a customer as principal liable for damages arising out of the execution of an oral order, but under the statute of frauds in various states the dealer could not hold the customer because contracts above $50 or some other specified amount must be in writing. Federal regulation now requires that the customer be informed whether the securities dealer is acting as principal or agent in any given transaction.

MARKETABILITY.—A high degree of **convertibility** between money and securities is an essential characteristic of a true market. It is of great value to long-term investors as well as short-term traders. Personal needs, death, or ever-changing business and market conditions may make it highly desirable or imperative to dispose of securities promptly. A security is said to have a high degree of **marketability** when it is possible to **convert** it into cash at a fair price, without the sacrifice of values involved in a forced sale.

In view of the fact that the bulk of the bonds sold to investors mature in the distant future, while preferred and common stocks are without maturity, the characteristic of marketability becomes of particular importance in connection with securities. Marketability, which permits the holder of a security to convert it into cash through a sale to another, has been vastly facilitated through the establishment of organized securities markets, in which buyers and sellers can be brought together without difficulty. In addition the influx of additional security-minded people has increased convertibility.

At the same time, mere listing of a security on an exchange does not guarantee a high degree of convertibility into cash. An exchange is merely a highly publicized auction market with varying degrees of activity. In fact, an entire post of the New York Stock Exchange (Post 30), with some 240 issues, is devoted to relatively inactive issues and trading is done on a "cabinet" basis, with bid and asked prices filed for reference, rather than on a true auction basis.

Too much emphasis should not be placed upon the investor's ability to convert securities into cash on a few minutes' notice. Long-term investments or divestments should be the result of mature study and consideration, and the ability to sell at a moment's notice is not necessarily essential.

Moreover, in the final analysis there is no true liquidity—only **shiftability** among individuals. Even this does not exist in times of concerted selling, except at substantial price declines. True liquidity cannot exist because securities represent, or are backed by, tangible

assets, often of the most fixed character. Their value, and the desire of others to buy the securities which are issued against them, depend mainly on the earning power of these assets.

Four characteristics are of importance in determining the marketability of a particular security issue. These are:

Closeness of a Market.—Virtually every security that is not known to be absolutely worthless can usually be sold for some consideration, however small. The quality of marketability in practice means that securities can be either bought or sold at a given time at almost the same price. Thus, when an issue is quoted in the market at 40 bid, 60 asked, it is said to have quite limited marketability. On the other hand, when a close market exists and an issue is quoted 50 bid, 50½ asked, it is said to possess the quality of marketability to a high degree. A **close market** does not signify that the buyer will be able to sell without loss, but merely that there is sufficient market interest in the issue to make the bid and asked prices close to each other.

Breadth of the Market.—The breadth of a market refers to its ability to absorb a large volume of either buying or selling orders in a given security without a material change in price. On the other hand, markets are said to be **thin** when a small amount of selling or buying produces relatively large fluctuations in the price of the security.

The breadth of a market is affected by a number of factors: the size of the outstanding issue, the character of its distribution, the size and standing of the issuer and general security market conditions.

Continuity of the Market.—Another factor of importance to the holder of securities is the continuity of a market, which refers to the size of the price changes between successive sales. Great emphasis has been placed by spokesmen of the auction markets on the continuity of the market, which is reflected in the quotations on the ticker tape. From the points of view of the in-and-out trader and the person who borrows heavily on his securities, a continuous market is of the utmost importance, for wide, erratic fluctuations between sales may cause losses and disturb creditors. It should be noted that many issues traded over-the-counter enjoy a continuous market, while a number of listed securities do not possess this quality.

Market Stability.—Stability of a market refers to its price behavior over a period of time, rather than between individual sales. Since security prices are bound to reflect changing economic and political conditions and prospects, technological developments, etc., stability is relative at best. A market can be said to be stable when quotations fluctuate because of changing fundamental factors, rather than fleeting shifts in technical market conditions.

The New York Stock Exchange

ORGANIZATION.—The New York Stock Exchange, prototype of other security exchanges in the United States and Canada, is a voluntary, unincorporated membership association. As such, it has not been subjected to state regulation but has long pursued a policy of self-

regulation and became subject to federal regulation by the Securities and Exchange Commission in 1934.

Pressure from the federal authorities, which became more insistent following the bankruptcy of a leading member in 1938, led to a thoroughgoing reorganization of the operating and trading procedures of the New York Stock Exchange. A committee headed by Carle C. Conway, President of American Can Co., was appointed to make recommendations to bring the organization of the Exchange and its trading procedures into line with modern concepts of just and equitable principles of trade. The Conway Committee recommended a complete revision of the Exchange's Constitution and administrative organization, including election of a full-time, salaried president who would act as chief administrative officer. The president may not be an active member of the Exchange, so that he will not represent any faction among Exchange members or have personal interests to protect in the conduct of his office.

Among the **objects** of the New York Stock Exchange, as set forth in Article I of its constitution, are:

> . . . to furnish exchange rooms for the convenient transaction of their business by its members; to furnish other facilities for its members and allied members; to maintain high standards of commercial honor and integrity among its members and allied members; and to promote and inculcate just and equitable principles of trade and business.

The Exchange's Constitution sets forth the organic law governing its operations. This is supplemented by detailed **Rules of the Board of Governors** which regulate the details of trading practice and relations between members. The Constitution and Rules cover such topics as ethical standards of dealing, uniform commissions, regulations of disputes among members, listing of securities and, most important of all, trading practices on the floor and relations with customers.

The legislative and judicial powers of the Exchange are invested in a **Board of Governors** which now consists of 25 men. The composition of the board is designed to insure that the various interests will be represented thereon. This board is now constituted as follows:

10 governors are elected to serve a 3-year staggered term, and must be persons who are members of the Exchange;
4 governors must be allied members or nonmember partners of member partners of member firms and must reside in New York City;
7 are allied members selected from outside of New York City;
2 board members are selected by the above-described members to represent the general public;
1 additional board member is elected to serve 1 year only and act as its chairman (he must be a member of the Exchange);
1 final board member is elected by the other members to serve as president of the Exchange at the pleasure of the Board.

The president is the chief executive and administrative officer of the Exchange. He acts as its official representative in all public matters. Administrative duties formerly performed by standing committees of the Board of Governors have been transferred to **departments** (Stock List, Public Relations, Member Firms, etc.) functioning under the president.

The duties of the Board of Governors are primarily to determine policies and pass judgment on disciplinary cases. For the formulation of policies, a revolving Advisory Committee of Governors has been created to aid the president. The board has wide disciplinary powers over members of the Exchange. Among other things, the Article XIV provides:

Section 6. A member or allied member who shall be adjudged guilty, by the affirmative vote of a majority of the Governors then in office, of a violation of the Constitution of the Exchange or of a violation of a rule adopted pursuant to the Constitution or of the violation of a resolution of the Board of Governors regulating the conduct or business of members or allied members or of conduct or proceeding inconsistent with just and equitable principles of trade may be suspended or expelled as the Board may determine.

The Constitution makes expulsion mandatory for fraudulent conduct, and subjects to suspension or expulsion members who are adjudged guilty of violations of the Rules, conduct inconsistent with just and equitable principles of trade, fictitious transactions, activities which have the purpose of upsetting the equilibrium of the market and bring about a condition of demoralization in which prices do not fairly reflect market values, or making misstatements to Exchange officials.

Section 10. A member or allied member who shall be adjudged guilty, by the affirmative vote of a majority of the Governors then in office, of any act which may be determined by the Board of Governors to be detrimental to the interest or welfare of the Exchange may be suspended for a period not exceeding five years.

These disciplinary provisions, backed up by the Securities Exchange Act of 1934 and rules promulgated by the S.E.C. thereunder, give the New York Stock Exchange adequate power to secure adherence to "principles of just and equitable trade" for the benefit of securities buyers and sellers.

MEMBERSHIP.—The New York Stock Exchange is limited to a total membership of 1,375. Only individuals may be members of the Stock Exchange. Members may become partners in firms devoted either to the handling of orders on the Exchange, so-called commission houses, or to the business of investment banking. Only **partnerships** can be registered with the Exchange as **member firms.** This is a result of tradition and the feeling that limited liability should not be sought by members of the Exchange. The question of permitting incorporation is under active consideration, however, because of the tax advantage of operating as a corporation and the fact that outside capital could then be secured more readily by member organizations. Several hundred of the members of the Exchange are partners in commission houses doing business with the public; the others are floor brokers and traders of various types or private capitalists who maintain membership to obtain lower commission rates on orders executed for them on the Exchange.

Individuals seeking to acquire membership on the New York Stock Exchange arrange for the purchase of a seat from an existing member, or from the estate of a deceased one. Having made such arrangements, they must formally apply for admittance to the Department on Members, which then investigates the past career, the financial standing and

other pertinent matters about the applicants. Each applicant must be at least 21 years of age, an American citizen, and be sponsored by two Exchange members. If found satisfactory, the application is approved and the sale of the seat is duly consummated.

The price of a seat reached an all-time high of $625.000 in 1929. The lowest price since that time was $17,000 in 1942. The price may be determined by private negotiation or by auction in case of the sale of a seat of a deceased member. It is primarily based upon the estimated profitability of the membership which, in turn, is determined largely by the volume of trading.

Types of Exchange Members.—Members of the Exchange may be classified in several clearly defined groups. A large number of member firms devote themselves to the execution of orders received from non-member customers for the purchase or sale of stocks and bonds. These are known as **commission houses.** They maintain more or less elaborate offices where their business is transacted. Many of these commission houses have branch or even their main offices in distant cities, and contact is maintained between the branches, the main office, and the Exchange by means of leased telegraph and telephone facilities. Commission houses that obtain a large part of their business from outside communities over leased wires are known as **wire houses.**

The **floor** or **"two-dollar" broker** acts as a broker on the floor for other Stock Exchange members. Since only members of the Exchange are allowed to engage in buying and selling on the floor, it is frequently necessary for commission house members who are not able or willing to spend their time on the Exchange floor, or who have too much business to transact there to manage it alone, to have other members execute orders for them. This is done at a reduced rate of commission which varies with the price of the stock. For example, on a stock selling at $60, the customer pays a total commission of $27.50 per 100 shares of which $6 goes to the floor broker for executing the order on the floor of the Exchange. The name "two-dollar" broker is a carry-over from the time a uniform commission of $2 per 100 shares was charged by these free-lance brokers as a fee for their services on the floor of the Exchange.

Floor traders are dealers who buy and sell on the floor of the Exchange for their own account. They seek to profit from price fluctuations, as do other speculators. They have the advantage, as members of the Exchange, of avoiding the payment of commissions and of having direct access to the floor, which gives them a first-hand opportunity to observe the character, technical position and trend of the market. Floor traders frequently operate for small fractional profits. Their activity tends to broaden the market on the Exchange and provide bids and offers at times when they may be lacking from other sources. In 1945, the staff of the S.E.C. recommended adoption of a rule designed to prohibit or restrict floor trading on the grounds that it may accentuate price movements, and that floor traders possess an inequitable advantage over public traders.

Specialists are brokers and dealers who concentrate their activity in one or a few stocks at a single trading post on the Exchange. They are

thus able to devote all their time to watching the market and executing orders in these specific issues. Specialists act both as brokers and dealers. In the former capacity, they receive orders in issues in which they specialize from other brokers, performing a function similar to that of two-dollar brokers and for the same rate of commission. Orders placed by customers for future execution, orders placed with a definite price limit away from the market, or orders otherwise unsuitable for immediate execution are generally turned over by commission houses to the specialists, who have the time and facilities for watching them. In addition to his functions as a broker's broker, the specialist also acts as dealer on his own account in his particular issue. He may buy and sell for his own account, subject to certain restrictions established by the Exchange and the S.E.C. for the protection of outside customers.

The specialist keeps a record of unfilled buying and selling orders placed with him in his book, which is kept at his post on the floor of the Exchange. Similar information concerning prospective demand and supply is not available to other traders. Only officers of the Exchange, in the course of their official duties, are permitted to inspect this book. Severe restrictions and heavy obligations have been placed upon the specialist to prevent his profiting from the "inside" knowledge of the market given him by his book of orders. Because of possibilities of personal enrichment arising from the strategic advantage of a dual position, the S.E.C. has long had under consideration segregation of the functions of brokers and dealers.

Odd-lot dealers are members specializing in the execution of orders for blocks of stock less than 100 shares, the unit of trading on the floor of the New York Stock Exchange in nearly all active stocks. Orders for odd lots of stocks are concentrated in the hands of two such odd-lot dealer firms who even up their position through the purchase or sale of full lots when necessary. For his services in making a market and taking a position, the odd-lot dealer receives a price differential of ⅛ of a point. The odd-lot customer always buys at ⅛ of a point higher or sells at ⅛ of a point lower than the price at which a full lot is shown on the tape immediately after the receipt of his order by the odd-lot dealer. Orders to buy or sell at a fixed price can be executed only if full-lot sales occur at the ⅛ differential. The odd-lot dealer, by being registered as such, must always be ready to make a market ⅛ away from the next round-lot transaction after he has received the order. In 1950 the differential was increased from ⅛ to ¼ for shares selling above $40.

Odd-lot dealers utilize the services of a number of **odd-lot brokers** at each of the active trading posts on the floor to execute orders in full lots to avoid the accumulation of long or short positions. Since they aim to profit from the ⅛ price differential, and normally seek to avoid speculative profits and losses, odd-lot dealers offset buying against selling orders for odd lots and have odd-lot brokers execute full-lot orders as necessary to even out their positions in each listed stock.

Bond brokers and **bond dealers** execute orders or trade in listed bonds, which are traded in on a separate portion of the Exchange floor known as the **bond crowd.**

LISTING SECURITIES ON THE EXCHANGE.—Only those securities can be traded on the floor of the New York Stock Exchange which have been admitted to active trading privileges, i.e., **listed** for trading. As a condition precedent to listing on a registered exchange, securities must be registered with the S.E.C. in accordance with the provisions of the Securities Exchange Act of 1934.

Issuers must initiate the action for listing. Duplicate originals of the application for listing are filed with the S.E.C. The registration or listing does not become effective until the Exchange has informed the Commission of its approval of the security for listing. Ordinarily, registration becomes effective automatically 30 days after receipt by the S.E.C. of the Stock Exchange's certification, but may become effective within a shorter period by an accelerating order of the S.E.C. (Security registration requirements are outlined under Federal Regulation of Securities Trading below.)

The listing application serves the dual purpose of placing before the Stock Exchange information essential to a determination of the suitability of the security for trading on the Exchange and, equally important, of providing the investing public with information to aid its appraisal of the merits of the security.

The listing privilege is granted securities by the New York Stock Exchange under rules promulgated by the **Department on Stock List.** These rules provide that applications may be filed by corporations or foreign governments wishing to have their issues admitted to the list. The Exchange's examiners aid in the preparation of applications, of which the applicant furnishes 800 copies. Such listing application must be accompanied by a check to cover the **initial listing fee,** and by an agreement to pay a **continuing annual fee** in the case of stocks.

Applicants who seek to list their issues must file with the Department on Stock List a mass of information concerning the nature of their business, its charter, its capitalization, audited financial statements for the past 5 years, depreciation policy, etc. In addition, the corporation must make a number of agreements with the Exchange covering regular publication of financial statements in the future; maintenance of a transfer agency and registrar in the Borough of Manhattan, New York City; advice to the Exchange of any vital future change in the business, capitalization, or policy of the enterprise, etc. To assure a broad market for the issue, so that it will not be subject to excessive manipulation and corners, a **distribution statement** is required indicating the number of holders of various sized blocks of the stock or bond issue.

Finally, to protect against any chance of forgeries, certificates must be prepared by an approved engraving company and samples submitted to the Exchange. Accounting standards for companies whose stocks are listed have been raised to a high level through the joint efforts of the Exchange, the S.E.C. and the profession. In general, the accounting and disclosure requirements of the New York Stock Exchange have been adopted but expanded in the registration requirements of the S.E.C.

As of the end of 1951, there were listed on the New York Stock Exchange 441 preferred and 1,054 common stock issues of 1,051 companies. These issues aggregated 2,615,904,584 shares with an aggregate market value of $109,483,613,065. There were listed 918 government and corporate bond issues with an aggregate par value of $98,158,162,611.

Listing Policy.—The general policy of the New York Stock Exchange has been to list only issues of larger and stronger domestic corporations, and to avoid doubtful or highly speculative promotions. In the case of the latter, a period of "seasoning" on the over-the-counter or other securities markets is preferred. Bonds of domestic and foreign corporations and foreign governments are freely listed when the requirements are met.

To be listed on the "Big Board" an issue must also meet other requirements such as adequate public distribution and trading interest. It will be listed only if its issuer has an established position in the industry. Since 1926, it has been the policy of the Exchange not to list common stocks which do not have voting power. In 1940 the Committee on Stock List decided, as a matter of policy, it would not list new preferred stocks which did not provide at least the following minimum voting rights:

1. The right of the preferred stock, voting as a class, to elect not less than two directors after the default of the equivalent of at most six quarterly dividends.
2. The affirmative approval of at least two-thirds of the preferred stock, voting as a class, as a prerequisite to any charter or by-law amendment altering materially any existing provision of such preferred stock.

Other requirements for listing securities refer to the size and character of business of the enterprise. Formerly, issues of limited size were not listed by the New York Stock Exchange because they could be more readily manipulated and "corners" created, but this policy has been relaxed because manipulative practices are prohibited or regulated by the Securities Exchange Act of 1934.

Subject to special restrictions, the Department on Stock List will recommend the listing of **general management investment trust** stocks and **American trust certificates** representing the deposit of shares of foreign corporations.

Motives for Listing.—A corporation lists its securities because of the better trading facilities which are thereby made available to present or prospective holders. Increased marketability resulting from listing facilitates the sale of new stock and exchanges of shares in mergers, and helps to keep stockholders contented. The wider distribution of the stock that will result will disperse minority interests and lessen the possibility of concentration of holdings. But corporate managements should consider the various alternatives. It may not always be to an issuer's advantage to list its securities on the Big Board. Better distribution may be obtainable on a smaller local exchange where the company is better known and local brokers and dealers will give more attention to making a market in this particular issue. Distribution may be local, and therefore trading will develop only in the vicinity of the local exchange. Again, listing may arouse speculative interest which may not result in a healthy distribution. Over-the-counter trading may provide sufficient marketability without so much speculative trading. Registration and reporting requirements, and the liabilities imposed by the statute, are avoided by the management when its issues are traded over the counter.

Listing Statements.—The Department on Stock List makes public the listing statements of issues approved for trading on the floor. These listing statements have been the source of much pertinent information, frequently not otherwise available, about the applicant corporation, its business and its financial status. Since the advent of the Securities Exchange Act, these listing statements have been largely supplanted by the comprehensive registration statements required by the S.E.C., which are reviewed by its analysts and, at times, checked by a special field examination for misleading statements and omissions to state material facts. The registration statements are on file at the Exchange and the Public Reference Room of the S.E.C. Material in registration statements is obtainable from the Secretary of the S.E C., at a photocopying charge of 7 or 10¢ a page.

While not readily available to the average investor, the information in these statements is disseminated to some extent through the media of the financial press and the statistical manuals.

In listing additional securities and in the alteration of provisions of outstanding issues, an abbreviated listing statement may be filed. Much of the data may be "incorporated" in the main registration by reference to statements already filed.

Striking from the List and Withdrawal of Registration.—Section 12(d) of the Securities Exchange Act provides:

> A security registered with a national securities exchange may be withdrawn or stricken from listing and registration in accordance with the rules of the exchange and upon such terms as the Commission may deem necessary to impose for the protection of investors, upon application by the issuer or the exchange to the Commission. . . .

Securities listed on the New York Stock Exchange may be removed from the list, or dealing therein may be suspended, at any time in accordance with its Constitution and Rules. It is an established rule of the Exchange that, in the absence of special circumstances, a security which, in the Exchange's opinion, is eligible for continued listing will not be removed from the list upon request or application of the issuer, unless the proposed delisting has been approved by the stockholders at a meeting at which a substantial percentage of the outstanding amount of the particular security was represented. In the absence of special circumstances, the Exchange will consider approval of delisting by over two-thirds of the outstanding stock, together with failure of 10% of the bona fide individual holders to object, as the minimum requirement.

Since 1934 the most frequent reason for delisting has been the failure or refusal of the company to comply with registration requirements covering financial statements. Delisting may occur because the issue has been redeemed, or because there has been a decline in trading activity due to acquisition of a large part of the issue by a parent company, or for other reasons.

UNLISTED TRADING ON EXCHANGES.—Trading on the floor of an exchange in securities which are not formally listed occurs when a corporation does not seek listing but, because of trading interest in the shares, members of the exchange nevertheless make a market for it. Since 1910, no securities have been admitted to **unlisted trading**

privileges on the New York Stock Exchange. On the New York Curb and the regional exchanges, however, trading in unlisted issues constitutes a large part or the bulk of the activity.

The Securities Exchange Act directed the S.E.C. to make a special study of unlisted trading and report thereon to Congress. Under amendments to the law which resulted, unlisted trading on exchanges has been subjected to restrictive rules. The aim of these rules to continue and extend unlisted trading privileges is to foster decentralization of trading by expanding the business of regional stock exchanges and, at the same time, to add to the number of issues traded on security exchanges. Issues admitted to unlisted trading privileges on the effective date of the Act have retained this status. Their number is being reduced by refundings, mergers, failures, and even registration for listing.

Unlisted trading privileges on one exchange may be accorded securities which are listed and registered on other national exchanges, on application to, and approval by, the S.E.C. This approval is usually accorded securities listed and registered elsewhere where the applicant exchange shows (1) adequate public distribution, and (2) sufficient public trading activity within its vicinity in the particular stock to justify the extension of unlisted trading privileges. In deciding whether these requirements are met, the S.E.C. considers the distribution of the issue represented by holdings of member firms and banks in the vicinity of the exchange and the volume of trading originating in such "vicinity." The S.E.C. must find that extension of such unlisted trading privileges is necessary or appropriate in the public interest or for the protection of investors. In so doing it considers the exchange's trading machinery, the extent of the auction market, full and odd-lot trading, and other technical factors. The statutory requirement that there be a "sufficiently widespread public distribution" is to make certain that the applicant exchange will provide a market adequate to cope with transactions of normal size. [N. Y. Curb Exchange, 3 S.E.C. 81, 85 (1938); The Chicago Stock Exchange, 9 S.E.C. 805 (1941).]

A third unlisted trading privilege is provided securities of companies for which a registration statement is on file under either the Securities Act of 1933 or the Securities Exchange Act, and for which periodic reports are filed under Section 15(d) of the Securities Exchange Act. Such issues must exceed $2,000,000 at the time of sale, and the issuer must undertake to file periodic accounting and other reports. Where such financial and officer and principal stockholder ownership reports are not available, the S.E.C. has said that the extension of unlisted trading privileges is not in the public interest nor appropriate for the protection of investors. (Cf. In the Matter of Application by the New York Curb Exchange, S.E.C., Exchange Act Release No. 3658, Feb. 20, 1945.)

TRADING FACILITIES.—Trading on the New York Stock Exchange is carried on in the **board room,** which occupies the main floor of the Exchange building. Along the sides of this room are the telephone booths having direct connections with the offices of members, where buying and selling orders and messages for the floor members are received. Members can be called from the floor to their telephones by flashing their numbers on two large black annunciator boards located on the two opposite walls of the board room.

On the main trading floor are found 12 **stock posts,** at each of which the markets for trading in a number of listed stock issues are located. In each wing of the Exchange building are adjoining trading floors, one devoted to additional listed shares and the other, known as the bond room, devoted to facilities for buying and selling listed bonds.

At a number of points on the floor of the Exchange are transmitting stations from which reports of sales are sent by electrical devices over the **stock exchange ticker system.** Instantaneous publicity is thus given sales made on the floor of the New York Stock Exchange all over the United States and Canada. In the basement beneath the trading floor are located safe deposit vaults of members and the headquarters of the **Stock Clearing Corporation,** which handles the clearing of transactions after they are made. Two visitors' galleries are found along the wall on each side of the Exchange floor, from which non-members may view the trading. The **Public Relations Department** of the President's office invites visitors and seeks to explain to the uninitiated the workings of the Exchange and its economic functions.

METHODS OF TRADING.—Transactions are executed on the floor of the New York Stock Exchange each business day from 10 A.M. to 3 P.M. except Saturday, when trading ends at 12 noon. In recent years, Saturday trading has been suspended during the summer.

Admittance to the Exchange floor during trading hours is limited to members and uniformed employees of the Exchange who aid them in carrying on their transactions and in making the necessary reports of trading. Employees of members or their firms must remain at their telephone stations during trading hours.

Trading on the floor of the Exchange is restricted, except for a few inactive stocks, to buying and selling of 100 share units known as **full lots.** Members at each trading post bid for and offer units of 100 shares or multiples thereof. Price variations are limited to ⅛ point or multiples thereof, except for United States Government bonds which are quoted in thirty-seconds, and a few low-priced issues in which smaller price changes are specifically permitted.

A broker seeking to execute a buying order for a customer goes to the post on the floor of the Exchange where trading in the security wanted is carried on and requests a **"quote."** Usually, other brokers at the post quote **bids and offers.** Let us say that the **market** is 91¼ bid, 91¾ asked at the moment, with no sales taking place. The highest bid and lowest asked prices constitute the market for a security. Our broker having an order to sell "at the market" then offers the stock at 91⅝. Rules of the Exchange require the broker to attempt to secure the best available price in executing orders. If there are no takers, he may lower his offer to 91½ and continue to drop the offering price ⅛ of a point until one of the bidders says, "Take a 100 at 91⅜" or whatever is the agreed-upon price. Whenever brokers agree upon a price through this auction process, a sale is effected—generally somewhere between the bid and offer quotations. Memoranda are made of the sale by the two brokers, and it is immediately recorded by Exchange employees, reported, and put on the ticker tape. All of this is done with amazing speed, frequently within the space of a few seconds.

PUBLICITY FOR QUOTATIONS—TICKER SERVICE.—The stock ticker, providing an instantaneous record of all round-lot

transactions on the floor of the Exchange, plays a very important role in securities trading. The ticker is operated by the New York Quotation Company, a subsidiary of the New York Stock Exchange. This company operates the stock tickers in the lower portion of Manhattan Island, New York City. The Western Union Telegraph Co. transmits quotations from one such ticker, as rapidly as they appear, to its own ticker system reaching all over the United States and Canada. Under the rules of the S.E.C., the tape must differentiate between unlisted and listed securities on exchanges where issues are admitted to unlisted trading privileges. This is usually done by placing the letter "U" just after the symbol designating the unlisted stock.

To save time and effort, listed issues are designated on the ticker by symbols. Lists of symbols are readily obtainable at brokerage houses. Fig. 1 shows a specimen of the stock tape. The abbreviations represent sales as follows:

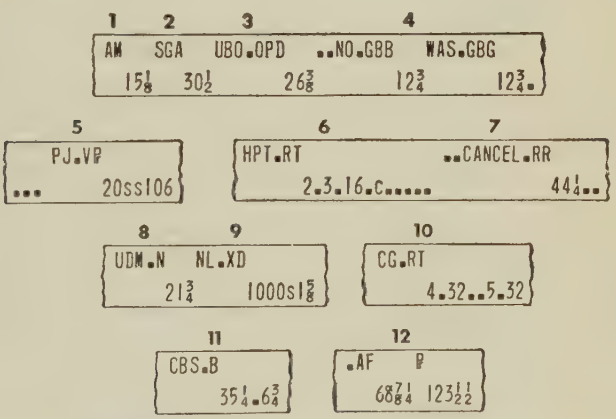


FIG. 1. Sections of New York Stock Exchange Stock Ticker Tape

Meaning of symbols in ticker tape illustration

1. Armour & Co.—100 shares at 15⅛.
2. Southern Natural Gas—100 shares at 30½.
3. Delayed report of opening sale of 100 shares of U. S. Tobacco Co., at 26⅜ or an opening sale of U. S. Tobacco Co. representing a price change of two or more points.
4. Error in symbol—100 shares of General Baking Co. common stock was actually sold.
5. Public Service Corporation of N. J.—$5 preferred, 20 shares sold at 106.
6. American Home Products Corp. rights—200 sold at 3/16 for cash delivery.
7. Delete last reported sale of Remington Rand Inc. at 44¼.
8. United Merchants & Mfrs. Inc. new stock—100 shares sold at 21¾.
9. National Power & Light Co.—ex-dividend 1,000 shares sold at 1⅝.
10. Columbia Gas & Electric Corp.—rights, 100 sold at 4/32 followed by another sale of 100 at 5/32.
11. Columbia Broadcasting System, Inc.—Class B stock closing quotation, 35¼ bid, 36¾ offered (appears after the closing).
12. American Car and Foundry Co.—common stock high and low prices for the day. 68⅞-68¼. American Car and Foundry Co.—preferred stock high 123½, low 123½ (appears after the closing).

Securities Trading on Exchanges

SECURITIES TRANSACTIONS.—The simplest and most common type of transaction on an organized exchange is the ordinary contract to buy or sell a security. Such orders are placed by the public through commission houses or by dealers for their own accounts. This type of trade is done in units of trading, which consist of 100 shares in the case of most stocks on the "Big Board." Some higher-priced and inactive stocks are traded in 10-share units.

Buying or selling in other than the established unit or round lots is referred to as **odd-lot trading.** A substantial portion of the trading done on the New York Stock Exchange—about 15%—consists of odd-lot trading. This type of transaction is of particular value to small investors and traders and others who wish to diversify their holdings.

Short selling consists of selling securities which are not owned by the seller. Settlement of the contract obligation is effected by borrowing the security sold short from **"street" holders,** usually brokers holding the security for the account of their customers, who are usually to be found in the **loan crowd.** Short selling is done for a number of reasons, the most common being a belief that the market is going to decline. Short sales are also made by specialists and odd-lot dealers to hedge their positions.

Trading in **listed bonds** may also take place on stock exchanges. Quotations are in 1/32 of a point and the unit of trading is one bond of the par value of $1,000. Bond trading on the organized exchanges is less important than stock trading, due, no doubt, to the closer market usually available for larger blocks of listed obligations over the counter. However, transactions in blocks of bonds over the counter are based upon reported sales on exchanges as a rule.

In addition to transactions in outstanding securities, trading goes on in securities on a **when-issued** basis. New issues are traded on this basis before delivery of actual securities can be made. Reorganizations give rise to such trading, once a plan has been approved by the court. When-issued transactions are cancelled if the securities are not actually issued, or if substantial changes take place in their terms before issuance. The liquidation of holding company portfolios under the Public Utility Holding Company Act of 1935 resulted in some trading in securities on a **when-distributed** basis.

As an offshoot of regular security purchases and sales are transactions in **privileges or options,** including **puts, calls, spreads, and straddles.** From a dealer or **writer** of such options, a trader can purchase an option to buy or sell a specified number of shares at a fixed price at any time within a specified period such as 7, 15, 30, or 90 days.

TYPES OF ORDERS.—The terms and conditions surrounding the **execution** of an order by a broker for a customer can be fixed by the latter. To avoid dispute, every effort should be made to assure that both know the meanings of the terms used and the trade practices involved.

Market Orders.—Orders to buy and sell at the market provide for execution as soon as feasible, at the most advantageous price obtainable by the broker on the floor, but without limitation as to price. In cases

of disrupted markets, brokers sometimes use their discretion and delay execution for a time, but this is unusual.

Limited Orders.—Customers may limit the execution of the order as to price. A limited buying order to purchase New York Central at, say, 20, must be executed at a price of 20 or less. Similarly, a selling order limited at 20 must be executed at 20 or more.

Orders may be limited by the customer also as to the time during which they may be executed. Market orders are to be executed as soon as possible, and so are not limited in this way. **Day orders** are automatically cancelled if not executed the same day in which given. Orders marked "G.T.W." are "good this week," so that they become automatically void if not executed by the end of the week in which given. "G.T.M." orders are good for the month in which given, while "G.T.C." orders are "good till cancelled." The latter remain on the books of the broker until executed or specifically countermanded by the customer. It is, however, a rule of the New York Stock Exchange that brokers check these G.T.C. orders with their customers at least at the end of each month for confirmation. This is done to avoid errors and forgetfulness on the part of customers.

It frequently happens that numerous orders come into the market for a stock to be executed at a fixed price. Thus, ten different brokers may have limited orders to buy varying amounts of Steel at 80. When this price is reached on a decline, the amount of stock available for sale at 80 may be only a fraction of the total of the buying orders. The rule of **"first come, first served"** applies as far as orders on the specialist's book are concerned, being filled on the basis of priority of receipt. A customer may then be told that there are "orders ahead" which prevent the execution of his order. If two or more brokers indicate at the same time that they wish to purchase a given block of stock that is offered, they match coins to see which should "get the sale." This gives rise to an occasional report to a customer, **"Matched and lost."** However, before Steel can sell below 80, all full-lot orders to buy at that price must be filled.

Stop-Loss Orders.—When buyers wish to limit their losses automatically, they may place stop-loss orders to buy or sell. These are orders which become market orders when the price of a stock reaches a specified quotation. Thus, suppose the buyer of 100 shares of stock at 50 would like to limit his loss to approximately 3 points. He places an order to sell at 47 **"stop."** Whenever a full lot of stock is sold on the exchange at 47 or less, his 100 shares are offered at market. If market conditions are unsettled, he may not be able to get 47 for his stock, but will get the best price obtainable by his broker at that time. Similarly, short sellers may seek to limit their loss from a rise in the price by placing **stop-loss buying orders.** Thus, a short seller may sell at 48 and place an order to buy "on stop" at 50. Whenever a full lot sells at 50 or higher on the exchange, this order becomes a market order to buy.

STOPPING STOCK.—A special arrangement may be made by a broker with the specialist in a stock to assure that an order will be executed for a block of stock when the issues reach a certain price. Thus, a broker may make an agreement with a specialist to "stop" 100 shares of Allied Chemical with him at 80. Whenever Allied Chemical sells at

80, this order will be executed automatically, the specialist buying the stock for his own account. The "stopped" transaction does not appear on the ticker, since it is considered a private transaction between the parties concerned.

EXECUTION OF ORDERS ON THE EXCHANGE.—Orders to buy and sell securities generally reach a brokerage house over the telephone or by mail from customers, or over its **private leased wire system** from out-of-town branches and correspondents. Large brokerage houses gather in orders from all over the country over such leased wire systems. These orders are transmitted to the floor of the Exchange over a private wire to the member's booth, where an attendant receives them and routes them to the floor member, a two-dollar broker, a specialist or an odd-lot broker, as the circumstances may require.

Transactions between brokers on the floor of the Exchange are verbal, but a **sales report** is sent by each broker to this telephone clerk. Word of execution is then phoned back to the member's office, and the sales report is later sent there to constitute the basis for subsequent recording and handling of the transaction.

The customer will receive in the mails the following day a **confirmation** of his purchase or sale, with the sum to be paid by him or due to him. This confirmation will specify the **transaction date,** when the order was executed on the floor, and the **value date** when the account of the customer will be debited or credited, as the case may be, following settlement of the transaction. Often, as a courtesy service to the customer, a telephonic confirmation of the transaction is given the customer in a few minutes after placing of the order by the customer's man.

BROKERAGE COMMISSIONS ON STOCKS.—For many years customers of members of the New York Stock Exchange were charged commissions for executing orders based on the selling price of shares. After some debate the members voted to revise the Constitution and Rules to alter the basis upon which minimum commissions were computed. This revision was designed to raise more money and to alter the incidence of the commissions to accord more realistically with the costs of executing the transaction. Effective November 3, 1947, schedule of minimum commisions is:

1. On stocks, rights, and warrants, selling at 50¢ per share and above, commissions are based on the amount of money involved in a single transaction at not less than the following rates for round lot and ten-share unit stocks:

Money Value	Commission
First $ 100.00	6%
$ 100.00 to 999.99	1% + $ 5.00
$1,000.00 to 3,999.99	½% + 10.00
$4,000.00 and above	1/10% + 26.00

For odd lots (less than the unit of trading) the permissible commission may be 10% lower than the above schedule subject to the following: "(iii) Notwithstanding the foregoing, when the amount involved in a transaction is less than $15, the minimum commission shall be as mutually agreed; when the amount involved is $15 or more but less than $100, the minimum commission shall be 6% of the amount involved; when the amount involved is $100 or more, the minimum commission charge shall not exceed 50¢ per share, but in any event shall be not less than $6 per single transaction."

2. On stocks selling below 50¢ per share commissions are computed on a per share basis and shall not be less than the following:

Price per Share	Rate per Share
1/256 of $1	0.1¢
1/128 of $1	0.15
1/64 of $1 and above but under 3/32 of $1	0.5
3/32 of $1	0.5
Over 3/32 of $1 but under 5/32 of $1	1.0
5/32 of $1 and above but under 1/2 of $1	2.0

The establishment of minimum commissions or charges has a two-fold purpose; it puts competition on a service basis, and eliminates what is known as "price competition." The elimination of the latter is especially significant because cut-throat competition could endanger the financial stability of commission houses. Members of the Exchange may, in no event, under the Rules of the New York Stock Exchange, split their commissions with others or charge less than the schedule of charges indicated above.

The fee of $2 per 100 shares for a floor broker is now a thing of the past. Floor brokers and specialists currently receive, on orders executed for fellow members of the New York Stock Exchange, a fixed schedule of commissions, which likewise varies with the price of the security. When nonmembers of the Exchange, such as banks, trust companies, or nonmember investment houses, receive originally the orders which are executed on an exchange, they frequently add a separate commission of their own to that charged by the broker.

TRANSFER TAXES AND FEDERAL REGISTRATION FEES.—**An excise tax is levied by the State of New York** (wherein all sales on the New York Stock Exchange are legally consummated) on all transfers of beneficial ownership of securities taking place within the state. This tax is payable regardless of whether any transfer is made on the books of the issuing corporation which, like the buyer and seller, may be physically located outside of the state.

Section 270 of Article 12 of the New York Tax Law, effective July 1, 1945, imposes a tax of 2¢ on the transfer of each share, except where the shares or certificates are sold, in which case the tax rate is as follows:

1¢ for each share where the selling price is less than $5 per share;
2¢ for each share where the selling price is $5 or more per share and less than $10 per share;
3¢ for each share where the selling price is $10 or more per share and less than $20 per share;
4¢ for each share where the selling price is more than $20 per share.

A few other states also levy an excise tax on the transfer of enumerated classes of securities.

As the tax is levied but once on each transfer, it is paid by the seller and is deducted from the sales proceeds due him.

The **federal government levies an excise tax** of 5¢ on the transfer of each $100 par value of stock or fraction thereof, and on transfers of shares of no-par value when selling for less than $20 per share. On shares selling for $20 or more, the federal transfer tax rate is 6¢ for each $100 of par value, and each $100 of no-par stock.

Thus, on a stock selling for $24 or more and having a par value of

$10, the New York State tax would be $4 and the federal tax 60¢ per 100 shares.

The federal transfer tax is levied also on loans of stock, whether made within one brokerage office or by one broker to another, at the 5¢ rate. The return of borrowed stock, however, is not taxable.

A **national securities exchange registration fee** is likewise charged. Section 31 of the Securities Exchange Act assesses a registration fee on exchanges for the privilege of doing business as a national securities exchange. This fee, due March 15, amounts to 1/500 of 1% of the aggregate dollar value of sales of nonexempted securities on the Exchange during the preceding calendar year. In turn, the fee is charged against individual members on the basis of their sales volume. On sales made for the account of customers, the 1/500 of 1% fee is deducted from the gross proceeds due. Where a sale is very small, the amount may be forgiven by the commission house.

The combined commission, transfer tax, and registration fee incurred in the sale of 100 shares of stock of an issue without par value selling at 30 is illustrated in the following computation:

100 shares at 30				$3,000.00
Deduct:				
Brokerage commission	25¢	a share	$25.00	
N. Y. State tax	4¢	a share	4.00	
Federal tax	6¢	a share	6.00	
Registration fee	.06¢	a share	.06	35.06
Net Proceeds				$2,964.94

STOCKS SELLING EX-DIVIDEND OR EX-RIGHTS.—When a dividend has been declared on a stock it is necessary to adjust the basis of its quotation because buyers who have the stock transferred to their names after the closing of stock transfer books or date of record do not receive a dividend. Because of the time required to deliver the stock and record buyer's name on stock ledger the New York Stock Exchange advances the date when stocks shall be quoted and sold on an **ex-dividend basis** to the **third** full business day before date of record.

A dividend declared May 20, payable July 1 to stockholders of record June 10, will go only to holders whose names are recorded on the company books at close of business on the record day. The stock will be quoted and traded on the exchange on an ex-dividend basis June 7, or, if a Saturday or holiday intervenes, the next preceding business day. Beneficial owners of stock held in street or other names on the record day are entitled to have dividends credited to their account though the stock is never actually transferred to their names.

Similarly, whenever **rights to subscribe** to new stock or other valuable privilege is given shareholders, it will ordinarily be quoted **ex-rights or ex-whatever else is being given** approximately 3 days before the day of record. The Exchange authorities may fix the date on which securities shall sell **ex-dividend or ex-rights** in their discretion. When dividends or rights go to brokers not entitled to them, as where stock certificates are not transferred promptly to the buyer, they are passed on to the right parties through **due bills** accompanying the stock at the time of transfer. Where stocks are borrowed for delivery against short sales, the broker will charge the customer for whose account he has borrowed the shares the amount of the dividend, which will go to the lender of the stock who is the owner of the beneficial interest.

TRADING IN RIGHTS AND STOCK PURCHASE WARRANTS.—Subscription rights to listed securities are normally traded in on the Exchange. They may become the subject of lively trading on a **when-issued** basis between the time when a new offering of stock to existing shareholders is announced by the board of directors and the date of their issue. Thereafter they are traded in the regular way. Because of the small investment which they require, their price may rise above their mathematical value based on the difference between the subscription and the market price of the security.

Stock purchase warrants, also known as **option warrants,** are commonly attached to other securities at the time of their issue or given to promoters or bankers on organization as compensation for services. These warrants entitle the holder to purchase shares of (usually) common stock at a specified price per share, either within a given period or for an indefinite time. Warrants may be issued separately or attached to other securities, and in the latter case may be detachable or nondetachable. Where warrants are not attached to listed issues, separate listing is required. In some instances, warrants to buy stock listed on the New York Stock Exchange are listed on the New York Curb.

WHEN-ISSUED TRADING.—Federal legislation has substantially altered the character of all **when, as, and if issued** trading in securities. Section 5 of the Securities Act of 1933 prohibits the sale by issuer, underwriter, or dealer of any security, by the use of the mails or in interstate commerce, unless a registration statement is in effect containing prescribed information about the issuing company and its security, for the benefit of interested investors. Furthermore, a prospectus summarizing this information must be delivered to the buyer for all sales made within a year by the company, its agents or investment bankers. When the securities are debt instruments, the **indenture must also be qualified** under the Trust Indenture Act of 1939.

The S.E.C. considers a **when-issued contract** not as a separate security, but as one which represents the security to be delivered and subject to the same requirements as it would be. Thus brokers and dealers, along with issuers and underwriters, are prohibited from dealing in when-issued contracts in advance of the effective date of registration.

Section 4(1) of the Securities Exchange Act, it is true, exempts transactions by any person other than an issuer, underwriter, or dealer (which includes a broker). From a practical standpoint, however, one cannot trade readily in when-issued contracts without a broker or dealer.

Under the statute, the following types of when-issued trading are practicable:

1. When-issued transactions executed by brokers upon customers' orders without solicitation may take place at any time. In actual practice this exemption is not important.
2. Brokers and dealers are entirely free to conduct when-issued trading at any time in classes of securities which, because of the character of the issuers, are exempted from the registration and qualification provisions of the Securities Act and its related Trust Indenture Act. These include government obligations, bank stocks, and railroad securities subject to regulation by the Interstate Commerce Commission. This exemption has been important chiefly in the case of railroad reorganization securities.

3. Most of the when-issued and all of the when-distributed trading occurs as a result of the **statutory exemptions granted** particular types of transactions: (a) exchanges or distributions of securities arising under Section 11 of the Public Utility Holding Company Act of 1935; (b) securities issued in corporate reorganizations under Chapter X of the Bankruptcy Act; and (c) securities issued in railroad reorganizations under Section 77 of the Bankruptcy Act. These exemptions are available only upon the occurrence of certain administrative or judicial action such as approval of a plan of reorganization or exchange by the S.E.C., a court of appropriate jurisdiction, or the Interstate Commerce Commission.

When-issued or when-distributed trading is permissible without affirmative judicial or administrative action in securities arising out of certain corporate actions approved by stockholders which are held not to constitute a "sale"—e.g., the distribution of a dividend in kind or the declaration of a stock dividend.

When-issued or when-distributed trading, apart from the above exemptions, is prohibited prior to effective registration. Such trading after registration is strictly limited by the fact that securities are registered only for immediate offering and sale. The one situation which commonly occurs in which there is an opportunity for when-issued trading after effective registration is the case where a security is registered for offering to existing security holders for subscription or exchange, to be followed after a lapse of time by an offering of any unsubscribed balance to the public. In this kind of situation there may be when-issued trading of two kinds: (1) in the security which is the subject of the rights during the period after effective registration when it is being offered solely to security holders; and (2) in the rights themselves (or in the warrants evidencing these rights) during the period between the effective date of registration and the date of actual issuance of the rights. Any dealer or broker who sells a registered security on a when-issued basis must make available the formal prospectus to each buyer.

Trading on Exchanges.—In addition to restrictions on when-issued trading imposed by the Securities Act and the Trust Indenture Act, which applies to over-the-counter trading of this character, another set of restrictions is imposed by the Securities Exchange Act. When-issued trading can take place only on an unlisted trading basis, since the full listing requirements cannot be satisfied. As a practical matter, only corporations with securities already listed or about which substantial public information is available may be admitted to unlisted when-issued trading.

Registration of securities for when-issued trading on exchanges must meet the requirements of S.E.C. Rule X-12D3. To be eligible for unlisted trading: (1) such securities must be issuable only in exchange for a security previously admitted to dealing; (2) the unissued security must be "in the process of admission to dealing" on the exchange; (3) the issuer must have made formal and official announcement specifying the terms of the plan or offer pursuant to which the security is to be issued, the record date, and the approximate date of issuance; (4) the issuer or the exchange must file a simple form with the S.E.C. to show compliance with the when-issued rules.

When-issued transactions appear on the stock ticker tape with the abbreviation "W.I." printed thereafter. These transactions are not

cleared until the issue date, or such date as the New York Stock Exchange may fix as the settlement date. The transactions may, however, be **marked to the market** in a manner similar to the practice in short sales. Since the New York Stock Exchange does not encourage it, when-issued trading takes place on the New York Curb and over-the-counter markets even though it is intended ultimately to list the actual securities on the Big Board.

With respect to **when-distributed trading**, the New York Stock Exchange requires, as a condition precedent to admission for trading, (1) that a definitive plan for distribution of the security pro rata to holders of outstanding securities of the distributor, without payment of any consideration, be approved by the appropriate court or governmental body; (2) that no possibility of an appeal exist; (3) that the distribution, when completed, be sufficiently broad to meet the Stock Exchange's usual requirements; and (4) that the distributor authorize the distribution to holders of record as of a specified date.

SPECIAL OFFERINGS AND SECONDARY DISTRIBUTIONS.—Large blocks of securities are sometimes offered for sale by estates, investment companies, and other institutional holders, large capitalists, business executives, corporate holders, and others who desire to liquidate or shift their holdings. The auction market is geared to moderate amounts of securities at any one time. It is not usually broad enough to absorb, without substantial price declines, large blocks which exceed the available demand and throw the market out of equilibrium. If such liquidation is pushed, the price of the security is depressed below its intrinsic worth, at least temporarily until this block has been "digested." Such sales cause a sacrifice to the seller.

Prior to the enactment of the Securities Exchange Act of 1934, distributions to the public of large blocks of stocks which were listed on exchanges were frequently accompanied by manipulation of the market. Such manipulation was designed (1) to raise the price of the security, and (2) to stimulate activity to the point where a demand large enough to absorb the offered security would be created. After passage of the Act, a procedure was developed and widely used whereby larger blocks of listed stocks were distributed to the public over the counter. These offerings were almost invariably made at 3 P.M., immediately after the close of the exchange market, to permit stock exchange members to participate in such "off-the-board" offerings. The securities involved were offered at or about the closing exchange quotation of that day. Most of these offerings were completed prior to the opening of the market on the succeeding day, and if not completed by that time they were usually withdrawn to avoid conflict with trading on the floor. Since member firms participated in these distributions along with nonmember firms, the exchanges were able to exercise a measure of control over the distributions. These **secondary distributions** could be underwritten, as is done with new offerings of securities.

These offerings became especially heavy after the start of World War II, when foreign governments sought to liquidate in this country the holdings of American corporate securities which they had sequestered from their own nationals. The New York exchanges became concerned with the loss of trading volume from "off-the-board" offerings of listed securities. Accordingly, they devised means to facilitate offerings of

comparatively large blocks of stock directly on the floors of these exchanges.

A special offering plan was evolved in 1942. The S.E.C. amended its Rule X-12B-2 to permit special offerings of blocks of securities on national securities exchanges pursuant to a plan filed with and declared effective by the S.E.C. These plans provide that a special offering may be made when it has been determined that the auction market on the floor of the exchange cannot absorb a particular block of a security within a reasonable time without undue disturbance of the current price. The offering is made at a fixed price set within the framework of the existing auction market.

Members, acting as brokers for public buyers, **are paid a special commission by the seller** which ordinarily exceeds considerably the regular rate of commission. This special commission is to compensate for the greater trouble and expense involved in finding buyers, and is a stimulus to make a substantial selling effort. Buyers pay only the fixed offering price, without commission. Full disclosure is made to the buyer of all the details relating to his purchase, including the commission paid to his broker by the seller. A special offering usually gets under way in mid-morning by an announcement on the ticker tape as follows:

NOTICE SPECIAL OFFERING BY RITER & CO 4100 MAE 22¾ COMM ¾

This means that Riter & Co. is handling a special offering of 4,100 shares of stock of Master Electric Co. at 22¾, with a commission of ¾ point or 75¢ paid brokers who send in orders for the stock which are accepted by Riter & Co. Due to advance soundings of the market, the offering may be subscribed within a few minutes. Rules of the New York Stock Exchange require, however, that the books remain open for at least 15 minutes, and that oversubscriptions be prorated. While special offerings are under way, brokers are obligated to take other stock which may be offered on the floor in the **regular way.** To prevent the market quotation from "sagging" under the weight of a special offering, stabilizing purchases may be made if notice of intention to stabilize the market is given in advance, and such transactions must be reported to the S.E.C.

Short Sales, Odd Lots, and Options

MEANING OF SHORT SALES.—A short sale is a sale of securities which the seller does not intend to deliver from his own portfolio. A **"true short sale"** is one where the seller does not possess the securities sold, while a **"short sale against the box"** is one where he does own the securities sold but does not intend at the time of sale to deliver them. The short seller expects the price of the security sold short to decline, and he expects in the future to be able to buy back or "cover" his short sale at a lower price, so as to secure a profit. Sellers for the decline are popularly known as **"bears,"** while buyers for the rise are known as **"bull"** speculators.

The total volume of short selling which goes on in normal times is only a small fraction of the speculative buying or **"long"** position that

prevails. However, in periods of unsettled markets short selling, by increasing the volume of securities offered for sale in the market at one time, may tend to demoralize trading. The New York Stock Exchange seeks to guard against concentrated **"bear raiding"** by its rules and additional restrictions that have been imposed on such activity in times of crises.

OPERATION OF A SHORT SALE.—When a customer wishes to sell a stock short, he gives a selling order to his broker in the usual way. Since the broker finds that the security sold is not in the customer's account, he will assume the transaction is a short sale unless specified otherwise by the customer. As the broker has to deliver the stock sold the third day following, under the settlement rules of the exchange, he must arrange to obtain the security sold for this purpose. This can be done by arranging to **borrow** the stock from some other broker in the **"loan crowd,"** where brokers arrange for loans of securities. Most borrowing of securities is arranged after trading hours.

To provide security for the loan of stock, the borrowing broker deposits with the lender a sum of money equal to the market price of the borrowed shares. This money is obtained from the short sale of the issue. Thus, if a brokerage house customer sells 100 shares of Steel at 65, his account is credited on account of a short sale to the extent of approximately $6,500. After the close of trading, his broker will go into the "loan crowd" and there borrow a certificate for 100 shares of Steel from some broker who is carrying it in a long account. The borrowing broker will deposit with the lending broker the $6,500 received from the sale as security for the loan of stock. The borrowed stock is then delivered the following business day by the borrowing broker to the buyer of the 100 shares of Steel.

Loaning Rates.—The broker who lends the stock may pay interest on the money deposited with him as security, which he may use to finance his business. This **"loaning rate"** varies with changing conditions, being determined by the supply of stock to lend and the demand for stock from shorts. It applies to renewals of stock loans as well as to new loans. If the call money rate is 2% and a particular stock enjoys a heavy borrowing demand from short sellers, the loaning rate may be 1%, which means that the broker who borrowed the stock receives interest at the rate of only 1% per annum on the money put up by him as security. In cases where stock is difficult to borrow, the broker who borrows stock may forego interest on the money he deposits as security, in which case it is said that the stock loans **"flat."** He may even have to pay a premium to the lending broker. The premium is stated at $1, or a multiple thereof, paid per day on each 100 shares borrowed. The premium paid will go to the broker who lends the stock, and he may or may not divide it with the customer whose stock is loaned, depending upon his private agreement with him. In recent years, due to low money rates, loans of stock have usually been on a "flat" basis.

The Act requires that customers of brokerage houses give specific permission to have their stock loaned before their brokers do so

As prices of stocks loaned fluctuate, the amount of money put up as security will be increased or reduced as either party asks that it be **"marked up" or "marked down"** to market price. Loans of stock, like

call loans of money, may be called at the option of either party on 24 hours' notice. A federal transfer tax is levied on loans of stock.

Margins Deposited Against Short Sales.—To protect themselves in the event of a rise in price of a stock sold short, brokers require margins to be deposited by short sellers just as in the case of long purchases. Margin requirements on "short" accounts are subject to regulation by the Board of Governors of the Federal Reserve System, just as with "long" accounts. In a **"mixed account,"** in which long and short items are mixed, the margin is figured separately on the long stocks and the additional margin requirement added for short commitments. When premiums are quoted on stocks borrowed, they are charged by the broker to the customer selling short. To some extent, brokers can avoid paying such premiums themselves by intraoffice borrowing of stocks.

ECONOMIC EFFECTS OF SHORT SELLING.—There is some diversity of opinion as to the effects of short selling on security markets. While undoubtedly short selling tends to stabilize the market, since short sellers have to repurchase later when there may not be an adequate demand for stock from buyers, in a period of general liquidation the short seller may unsettle trading by adding to the actual volume of offerings in an already overloaded market.

The major advantages claimed for short selling are:

1. Short sellers supply stocks when prices rise and optimism is rampant, thus tending to retard excessive advances.
2. Short sellers buy in on the decline, thus tending to reduce the extent of the fall in price.
3. Those holding real estate or other less marketable assets can protect themselves against a general decline in the price level by selling standard stocks short.
4. Short selling is necessary on the part of odd-lot dealers, floor traders, and specialists to perform their essential functions.

The chief arguments advanced against short selling are:

1. The practice may cause unwarranted declines in security prices, especially when insufficient buying orders in the market make the "technical position" of the issue weak.
2. Short selling by floor members and specialists, who can get an intimate picture of the state of the market, may permit them to profit at the cost of the outside public when it tries to liquidate securities.
3. Short selling may exaggerate security price advances as well as declines, as shorts who sell on a rising market may find it difficult to cover and will have to bid against themselves to obtain stock for this purpose.

CORNERS AND MANIPULATION.—Corners arise when the short interest in a stock finds it impossible to borrow shares to deliver against their commitments. A **"technical corner"** is one where stock can be borrowed, but only by the payment of exorbitant premiums of several dollars a day per share. Corners sometimes arise when the stock of a company is being bought for control, unknown to the shorts. At other times, heavy investment buying of stock may eliminate the floating supply from the market and disclose an unwieldy short interest, in which case the pool may increase its profits by lending stock at a premium. In some cases, a condition approaching a corner may arise acci-

dentally, through excessive short selling of an issue with a small floating supply.

The New York Stock Exchange has sought to avoid corners by refusing to list small issues of stock in which such a condition could readily arise. Also, the Exchange investigates the market position of a stock when it is feared the borrowing supply is becoming inadequate, and it may require members to report at once their positions and commitments in such an issue. When conditions approaching corners do develop, the Exchange under its constitution can order deliveries against short sales deferred, or order that outstanding contracts be **settled at a fixed price** to avoid spectacular price gyrations which tend to unsettle confidence in the remainder of the market and attract unfavorable publicity to the Exchange. In extreme cases, the Exchange has stricken from its list issues in which corners have developed on the ground that a "free and open market" for the issue, the primary objective of the Exchange, has been destroyed. This drastic action is resorted to when the corner has been intentionally created, and especially when the management of the enterprise is involved in the operation.

There are two classic examples of corners. In 1869 Jay Gould, trading in the Gold Room of the New York Stock Exchange, engineered a corner in gold, running up the premium price from 131 to 160. But sales of gold by the United States Treasury broke the price to 132. Because of the bankruptcies which ensued as a result, this day has been called "Black Friday." In 1901, the Morgan-Hill interests, in their struggle with Harriman for control of the Northern Pacific, unintentionally cornered the market. It was reported that some short sales contracts were settled at prices approaching $1,000 a share.

Corners are not likely to occur in present-day markets because of the surveillance by the S.E.C.; weekly reports which members must make as to their short position; publication of trading by directors, officers, and principal holders; power of the S.E.C. to suspend trading; and, finally, statutory prohibitions of manipulative practices.

FEDERAL REGULATION OF SHORT SELLING.—In 1930 the New York Stock Exchange promulgated a rule which prohibited short sales at less than the previous sale price, to prevent bear raiding and demoralization of the markets. This rule, however, did not cover several types of transactions which are now considered "short sales."

Section 10(a) of the Securities Exchange Act of 1934 makes it unlawful for any person to effect a short sale of any security registered on a national securities exchange in contravention of any rules or regulations which the S.E.C. may prescribe as necessary or appropriate in the public interest or for the protection of investors. Under this authority, the S.E.C. promulgated Rules X-10A-1, X-10A-2, and X-3B-3, effective February 8, 1938. The effect of these was to prohibit the short sale of a security except at a **price above the last preceding sale price.** Odd-lot transactions and certain round-lot transactions of odd-lot dealers were exempted from the rules. Following study of the effect of its rules, and upon the recommendation of the New York Stock Exchange, the S.E.C. modified these rules in 1939 to permit short sales at the **price of the last sale,** instead of above the last sale price, **provided that the last sale price was itself higher than the last different price which preceded it.**

Under the earlier New York Stock Exchange rule, if a regular sale of a security was made in a declining market at, say, 26, a number of short sales could be made at 26 or above, but a short seller could not force the price down and execute a sale at 25⅞. Under the original S.E.C. rule, once the price declined to 26 a short sale could be executed only at 26⅛ or higher, and successive short sales only on a rising price scale. As modified later, the S.E.C. rule permits any number of short sales at 26⅛.

In addition to the exemptions granted to odd-lot dealers, exemptions are extended to certain short sales on a domestic exchange effected for the purpose of equalizing prices between that exchange and another national securities exchange, short sales effected in arbitrage transactions between securities, and certain short sales made in the course of international arbitrage.

ODD-LOT TRADING.—Many orders received by stock exchange houses are for lots of less than 100 shares, which cannot be executed in the regular way on the floor of the exchange. To handle this business, **odd-lot dealers** have developed a specialized, highly efficient mechanism. Originally, specialists handled odd-lot as well as full-lot business in their issues, and they still do a fraction of such business at the present time. The bulk of the odd-lot business is now done by a few dealers who specialize entirely in the execution of such orders.

Odd-lot dealers on the New York Stock Exchange stand ready at all times to buy or sell from 1 to 99 shares of stock in any listed issue. These dealers receive orders only from other commission houses, which in turn get them from the public. The odd-lot dealer charges a **differential** on buying orders which is usually ⅛ point more than the next quoted price on the ticker tape after receipt of the order. On shares sold to him, he deducts a differential of ⅛ point, plus a charge for transfer taxes, from the next quoted price on the ticker tape for a full lot. If desired, the odd-lot broker will sell at ⅛ point "away" from the asked price and buy at ⅛ point "away" from the bid price immediately, without waiting for the next full-lot sale to be recorded on the ticker. He also adds the tax charge in selling on the asked price.

Since the odd-lot broker is automatically buying and selling stock on the basis of the price for full lots quoted on the tape, or the bid or asked price if desired by customers, he must be very nimble to avoid taking a net position as far as possible. Therefore, when buying orders tend to exceed orders to sell, or the reverse, the odd-lot dealer seeks to **even up his position** by going into the market and buying or selling full lots, as required. To be ready to even up positions without delay, odd-lot houses may have as many as 40 floor members, each handling one or a few issues. They also use a large number of floor brokers to expedite full-lot purchases and sales to even up their positions. The primary objective of the odd-lot dealer is to profit only by the ⅛ point differential charged from the full-lot ticker quotation, rather than from fluctuations in the price of the security.

In placing orders for odd lots of securities, it is important to keep in mind that it takes about four minutes to transmit such an order from a Wall Street brokerage office to the floor of the Exchange. Therefore, on an issue in which the odd-lot differential is ⅛, orders to buy at, say, 90 will not be executed until a full lot at 89⅞ appears on the tape, unless

permission is given to buy at the asked price and sell at the bid price and this is satisfactory to the odd-lot dealer.

The commission broker receiving the odd-lot order from the public charges the usual rate of commission for its execution.

DEALING IN OPTIONS OR PRIVILEGES.—An important adjunct to stock speculation is the market in options or privileges, including "puts," "calls," and "spreads." Members of the New York Stock Exchange are forbidden to trade in **options,** on the floor of the Exchange, but they may guarantee these privileges and so assure that they will be honored. **Put and call brokers** issue lists of prices on privileges from time to time.

A **"put"** is a contract whereby the holder gets the privilege of delivering a stated number of shares of a given stock to the maker within a certain time and at a certain price. It is purchased by those who hope to make a profit from a decline in the stock.

A **"call"** is a contract whereby the holder gets the privilege of purchasing a given number of shares of a given stock from the maker within a certain time and at a certain price. It is purchased by those who hope to profit from a rise in the shares.

A **"spread"** or **"straddle"** is a combination of a put and a call. The holder can buy or sell as he wishes within the allotted time, at the prices stated. It is purchased by those who wish to profit from a major price fluctuation in an issue, regardless of its direction.

Federal and state tax stamps are required by law to be affixed to all call contracts. These taxes must be paid by the buyer of the call contract. Maximum federal and state taxes are $10 per 100 shares. There is no tax on put contracts.

Dividends and distributions on shares which sell "ex" during the life of the option go with the stock. Thus, the holder of a put which sells "ex" must pay to the endorser such dividend or distribution if he decides to deliver the stock; and the holder of a call receives such dividends or distributions if he calls the stock. As regards rights, the **Put and Call Brokers and Dealers Assn., Inc.** has ruled that the opening sale of the rights, when stock sells ex-rights on the exchange, is automatically the agreed price between the owner and the seller of the option, and this price is the settlement price when either a put or call contract is exercised.

Puts and calls may be purchased for 30, 60, and 90 days' or longer duration, as agreed by the parties to the contract. They can be **purchased at the market price** of the stock for an agreed premium, or at so many points above or below the market as fixed by negotiation between the buyer and the seller.

Privileges become valueless if not exercised within the specified time. When exercised, the stock is bought or sold in the regular way, commission being paid on the transaction.

The manner in which speculation may be carried on with options may be seen by an illustration. Suppose a call on 100 shares of Steel is available at 3 points above the market and that the stock is currently quoted at 70. The call will cost the buyer $1.37½, plus tax, a share for a 30-day period, the usual price of a one-way option, or $137.50 for the option on 100 shares. If during this period Steel should rise to 76, the profit to the option holder by exercising it is computed as follows:

Cost of option	$ 137.50
Cost of 100 shares of Steel at 73 under the option, plus commission	7.330.75
Total cost of stock	$7.468.25
Proceeds of sale of 100 Steel at 76, less commission, taxes, and fees	$7,559.36
Profit on transaction	91.11

Purpose of Privileges.—Privileges have two chief uses. First, they permit speculators to take positions with **small risk** and a negligible investment. In the case above described, the maximum risk of the holder of the privilege is $137.50, plus tax, for if Steel had not risen he would merely have permitted his option to expire. If there had been a major rise in the price of the stock, his profit would have been many times the amount invested. By comparison, the outright purchase of Steel at 70 would require an investment of more than $7,000.

In the second place, options may be used as a means of **limiting losses on other commitments.** Thus, suppose a speculator has accumulated 1,000 shares of a stock selling at 80, involving a total investment of $80,000. He wishes to hold the stock for an extended rise but at the same time wishes to guard against a sharp reaction in the stock. This he can do by buying a put, which will allow him to deliver the stock at his option at a stated price in the event of a decline.

The following example contrasts the value of a put privilege with a stop-loss order:

A and B each buy 100 shares XYZ at 50.

A buys a put contract at 48½.

B, who does not buy the insurance put contract, enters a stop-loss order at 48½.

XYZ declines to 47.

B is stopped out at or near 48½ since a sale at 48½ or lower causes his stop-loss order to become a **market order,** and the broker must then sell his stock at the best possible price obtainable.

A, protected by his put option contract, knows that he can sell at any time during the life of his contract 100 XYZ at 48½.

XYZ rallies to 53 and A can sell his stock at a profit because his put contract enabled him to hold his stock until its expiration. B, who sold his stock at a loss on account of the stop-loss order, does not benefit from this upturn in the market price.

If A buys 100 shares of XYZ at 50 and carries it for a period of 3 months or longer and has at the time a substantial profit (say 15 points) he can then insure his profit by buying a put at the market for 3 months for about $400. This would guarantee him a long-term profit of $1,500, less the $400 he paid for his put option. If the stock should continue to advance and at the end of 6 months sells at 75, he can sell his stock and realize a $2,500 long-term profit. The put, of course, is allowed to expire unused and the $400 which he paid for the put constitutes a short-term loss for tax purposes. If the stock had reached to 55, on the other hand, he would "put" his stock at 65 and thereby retain a long-term profit of $1,100.

In addition to the two chief uses just mentioned, options may be used as a method of **entering the market** at a future date. This is desired by a trader who is uncertain as to the market outlook or who is awaiting the occurrence of some event, e.g., a court decision. With a call or

put, he may buy or sell at a fixed price after he knows the course of events.

Privileges originate to a large extent with large stockholders who seek to earn additional income on their holdings by writing puts and calls which they hope will not be exercised. Sometimes a block of stock can be liquidated by a large holder through the sale of calls. Additional income is earned from the sale of the options until such time as they are exercised, when the sale is finally consummated.

Speculation in Securities

DIFFERENTIATION OF SPECULATION FROM INVESTMENT.—The fundamental difference between speculation and investment is the **degree of risk** involved in a transaction. Other differences which have been noted by writers on the subject are:

1. Speculation seeks appreciation of principal through a rise in price, whereas investment aims to conserve principal while securing a moderate rate of return.
2. Any commitment made to secure more than a reasonable rate of return, whether through appreciation or by extra large interest and dividend payments, is a speculation.
3. The purchase of securities on margin is speculation, where their purchase outright for long-pull holding is an investment.

The differentiation between speculation and investment is not hard-and-fast, and it is often difficult to distinguish between the two types of commitments. The differences noted are all pertinent, but any effort to apply them rigidly comes up against a number of exceptions. The degree of knowledge about investment matters possessed by the security buyer is highly important, for only by being able to isolate and appraise risks, or having this done by reliable experts for him, can the buyer really avoid them and so invest rather than speculate.

From the point of view of the capital market as a whole, it does not matter much whether a buyer of securities makes a speculative or an investment purchase. In either case, capital in the form of purchasing power is transferred from the buyer to the seller. Speculation does affect the security market as a whole to a marked degree, however, when it takes the form of extensive purchasing of securities with the aid of bank credit obtained through call loans on the stock exchange, direct security collateral loans from the banks, etc. Speculation then directs bank credit into the purchase of securities and so expands the volume of funds available for investment in securities whether they are required or not. In recognition of this, the Board of Governors of the Federal Reserve System, by the Securities Exchange Act of 1934, was given authority to regulate security loans.

ADVANTAGES AND DISADVANTAGES OF SECURITY SPECULATION.—Like other economic phenomena, speculation has its advantages and disadvantages. Experiences of the past show it is very difficult to control effectively.

Advantages.—The economic advantages of security speculation are:

1. Capital is made available to new and untried enterprises, which could not be started at all if investors had to be appealed to for

necessary funds. Many of the great industries of the day, from the railroads to radio manufacturing, got their start because speculators were willing to buy their securities before they had become seasoned.

2. The savings and credit resources of the nation are mobilized for the financing of enterprises in their promotion stages, or those which are not strong enough financially to make an investment appeal. Through bank loans on securities, speculators obtain these funds and use them to purchase such speculative issues, safeguarding the banks against loss by the margin they put up.
3. Speculation acts as a stabilizer, though often quite an imperfect one, of security prices. The speculator may be the only one who cares to buy securities when the outlook is clouded, and conversely, he may sell short and so supply them when investors are optimistic.

Disadvantages.—Disadvantages which have been urged against security speculation are:

1. Speculation tends to exaggerate security price swings by causing excessive buying on the rise and thus excessive liquidation on the decline.
2. Losses due to unsuccessful speculation tend to discourage saving.
3. Speculation that involves large security loans tends to disrupt the banking structure during the subsequent period of severe liquidation in the security markets. In extreme cases, such as the period preceding and following the panic of 1929, widespread security speculation may affect the entire economic structure, providing an excessive stimulus through credit inflation at one time, and later prostrating the economy by severely curtailing purchasing power as this credit is repaid.

PREVENTION OF POOL OPERATIONS AND MANIPULATION.—Stock prices have, at times, been determined by manipulative, as distinguished from unorganized speculative, activity. "Pool" operations were formerly carried on with a variety of ends in view. These included:

1. The distribution of securities, as in the case of a new issue or a liquidation of a large privately held block, i.e., secondary distribution.
2. To make a profit through purchasing a block of stock in the market at one price and redistributing at a higher price level.
3. To peg the price of a stock preliminary to and during a new offering of shares to stockholders, or in connection with a merger transaction.

The usual method of pool operators was to accumulate stock over a period of time, refraining from buying on bulges during the period of accumulation. The second step was the "marking up" process, which was accomplished after the block of stock desired had been accumulated. By that time, the floating supply of the issue had usually been reduced so that a few large buying orders sufficed to advance the price to the desired level. The rise tended to attract a public following, and the stock accumulated was then gradually distributed around the high level of the advance, or after a decline had set in.

For market stabilization, a different technique was used. In that case, buying orders were placed on a scale down under the market, to offer resistance to declines. Conversely, selling orders were placed on scale up

above the market, so that the stock purchased on declines could be disposed of on advances. Thus, resistance was offered price fluctuations in both directions.

Pool operations and manipulative practices which were so frequent in the decade of the 20's and before are now largely a thing of the past. Section 9(a) of the Exchange Act specifically prohibits any transaction in any security which involves no change in beneficial ownership. **Matched orders, wash sales** and other transactions for the purpose of creating a false or misleading appearance of active trading are specifically proscribed, as are transactions for raising or depressing the price of a security for the purpose of inducing its purchase or sale by others. Furthermore, it is illegal for a member to circulate or disseminate, in the ordinary course of business, information to the effect that the price of any stock is likely to rise or fall because of market operations.

Section 9(a)(6) prohibits a series of transactions for the purpose of **pegging, fixing, or stabilizing the price** of any security except in conformance to rules and regulations of the S.E.C. Regulations covering some types of stabilization have been issued by the Commission.

Very few issues are now offered "at the market." To do so, they must have a really organized market, which practically means that they are listed on an exchange. Secondary distributions off the exchange have been made at a fixed price based on closing exchange prices. In these "twilight" or "dark 'til dawn" markets there is no need to stabilize, since the only selling is by the distributors. With respect to special offerings on the floor of the exchange at a fixed price set in the mechanism of the auction market, the intention to stabilize must be stated in the notice of intention to offer filed with the exchange authorities and the S.E.C.

Secondary distributions lasting several days may provide for stabilizing activity, but offerors must file daily reports with the S.E.C. of any stabilizing transactions. Ordinarily, stabilizing agreements provide that purchases shall aggregate not more than 10% of the entire offering. Additional discussion of stabilization of a market is given later in this Section, under Federal Regulation.

INDICES OF SECURITY PRICES.—There are approximately 1,054 common and 441 preferred stocks listed on the New York Stock Exchange. A good portion of these are not traded every day. Some stocks go up or down in varying amounts while others remain unchanged. The casual observer can get only a confused picture of the trend of the market from the high, low, and closing quotations of daily trading, or by following the tape. To give traders an idea of the direction of the market, statistical summaries are published in the financial press—e.g., the number of stocks traded, the volume and the number which closed higher or lower, or unchanged. A list of 10 or more leaders in volume of trading, with their price changes, may be given.

To provide a more precise indicator of the market's direction, the financial publishing house of Dow, Jones & Co. started compiling at the end of the last century, a simple arithmetic average of the closing prices of 11 active, and then representative, stocks, 9 of which were rails. Averages are now computed by Dow, Jones & Co. for **30 industrials, 20 rails, and 15 utility common stocks,** as well as a composite of the three groups. These averages are subject to the criticism that

they are not a broad enough sample to be representative of the market, and are dominated by a few active leaders. But they give an indication of immediate price trend. They are computed and published on the ticker tape at the opening and hourly thereafter.

The Associated Press, the New York Times, the New York Herald-Tribune, and the N. Y. World-Telegram and Sun and Standard Statistics publish stock price averages with a broad coverage. Averages are computed for **bonds** of railroads, public utilities, and industrials. Special series are available, including one for municipal bonds and one for mining stocks. Moody's Investors Service publishes indices of yields of groups of bonds and stocks.

These indices, needless to say, are watched with keen interest by all security-minded people. They are often plotted, to give a picture of price movements over a period of time. Plotted on semi-logarithmic paper, the movements of a $10 stock can be compared with price variations of a $65, a $100, or a $145 stock, since they are all plotted on a proportional or ratio scale. The comparative significance of a given dollar price change is then seen proportionately.

THE DOW THEORY OF STOCK PRICE MOVEMENTS.—At the turn of the century, Charles H. Dow advanced a theory, which has been enlarged upon by followers, for forecasting stock price trends by interpreting fluctuations in the two primary stock market averages then in existence, industrials and rails. The market at any given time is the resultant of three forces—day-to-day fluctuations, intermediate short-term movements, and, finally, major trends. The objective of Dow theorists is to forecast only **changes in the major trend of the market.** This they consider of special value because it, in turn, foreshadows changes in business activity.

As long as the top of each intermediate movement of the averages is higher than that of the preceding one, a major bull movement is continuing. A change is indicated, according to these theorists, when the peak of an intermediate movement fails to equal and surpass that of the preceding one; a definite signal of change in direction is given when both the peak and the trough fail to equal preceding ones. The **signal of declining business,** it is held, always comes **after** the change in the trend of stock prices has already taken place.

Lest one average be misinterpreted or be subject to misleading special factors, the two averages, rails and industrials, are used to supplement and corroborate one another. When one gives the same type of signal as the other, this confirms and reinforces the signal. Other factors are given varying degrees of emphasis, such as volume of trading, the degree of "penetration" of a new top or bottom, sidewise movement, and double tops and bottoms.

Many other, more elaborate theories for predicting stock price movements have been evolved in more recent years. As with soothsayers of old, failures of such predictions do not discourage those who make them —they merely modify or change their theories. The basic question raised by all these "systems," of course, is whether a market reflecting the actions of millions of persons, in response to a multitude of considerations, is subject to prediction by any mechanistic formula.

Stock Market Charts and Tape Readers.—A number of speculative traders utilize charts as an aid to their activities. While much of the

effort to use charts is based upon empirical analysis of past trends, "chartists" usually claim an underlying logical basis for the use of such graphical devices as a guide to trading.

A chart of price movements of an individual stock had value when a pool operation was going on in that issue. If the price trend was studied in conjunction with the volume of sales, it was frequently possible to trace the processes of gradual accumulation by the pool at one price level, the marking up of the price and the distribution of the issue at a higher level. With the outlawing of organized speculative pools by legislation, this type of "chart reading" has lost most of its significance. However, many traders feel a chart of the past price movements of a stock is helpful to them in appraising its current market position. Charts based on stock price indices are much less certain of interpretation. Some aid, however, in analyzing the technical state of the market, and the relative eagerness of the public to buy or sell stocks at any one time, may be furnished by an open-minded and cautious interpretation of charts of stock price indices.

Tape readers are a special type of chart trader. They specialize in one or a few stocks and watch every trade and the volume of trading in these issues for what they believe to present an opportunity to make an in-and-out of the market profit—i.e., a quick turn. Frequently tape readers do not expect to "carry a position" overnight. In the old days, this meant that they could operate on a shoestring. S.E.C. regulations require that such "daylight trading," even though the transactions are closed out the same day, shall be fully margined.

SECURITY SERVICES AND RATINGS.—To aid investors and traders, specialized services assemble and publish a mass of statistical information about individual companies. Services vary in quality from reputable gatherers and interpreters of economic and financial information to mere tipster sheets. The leading services, Moody's, Standard and Poor's, and Fitch, publish financial manuals or loose-leaf card systems of a comprehensive character, obtaining the information mainly from annual reports, data filed by the corporations with the S.E.C. and other official sources. Standard investment analysis ratios are computed from the financial statements for those who wish to make a quick appraisal of security values.

A number of organizations provide an investment advisory service which interprets current conditions and trends affecting the market as a whole and individual securities. They make recommendations of purchases and sales for investment or speculation. A number act as investment counsel and service a portfolio of securities, making specific recommendations to buy, sell, or hold, for a fee. Individuals or corporations that provide this service must conform to the requirements of the **Investment Advisers Act of 1940.**

The three leading investment services also undertake to evaluate the quality of securities by rating them. Bonds and stocks may be rated from several points of view. Safety of principal, security and certainty of income, asset values behind the security, earning power, and marketability are the usual tests. (See the Section on Investment Analysis for further discussion.)

Settlement of Exchange Transactions

STOCK EXCHANGE SETTLEMENT PROCEDURE.—The New York Stock Exchange, unlike European security marts, operates on the principle of **daily settlement.** Every transaction on the Exchange, except where specific exception is made by agreement between the parties, must be settled by 12:30 P.M., so-called **delivery time.** of the fourth following full business day. Transactions made on Friday and Saturday, however, are settled together on the following Thursday.

Under special circumstances, parties to a security transaction may provide for settlement on a different basis. Thus, **"cash"** transactions involve settlement by delivery of securities and payment of money on the same day. These are resorted to when it is desired to make the sale that day a matter of record, as in connection with the establishment of security losses for tax or statement purposes on the last day of the year. In other cases, sales may be made for future delivery at **buyer's or seller's option** up to 60 days. Some sales in this category are really short sales, while others represent securities sold by holders living at a distance from New York or abroad, who wish more time to make delivery.

Settlement of security transactions on the Stock Exchange is facilitated by the process of **clearing** which seeks to offset transactions so that actual deliveries of securities and money can be reduced as far as possible. The **Stock Clearing Corporation,** a subsidiary corporation whose stock is held by the Board of Governors in trust for all the members of the Exchange, effects clearing. Without it, settlement daily for the vast volume of transactions which takes place on the New York Stock Exchange in active trading periods would be difficult, if not impossible.

Only the active stocks are "cleared" through the Corporation. Odd lots, inactive Post 30 stocks, and bonds are not cleared. Nonclearing securities, however, will be delivered by the central delivery department. Not all members of the New York Stock Exchange are members of the Stock Clearing Corporation, but those who are not clear through a clearing member. For this privilege, a small charge is made. Regular clearing members defray expenses by charges which are levied in accordance with the volume of various types of activities transacted. In addition to members of the New York Stock Exchange, 12 banks in the New York financial district, the Federal Reserve Bank of New York and an investment banking house, the First Boston Corporation, have clearing privileges.

STEPS IN SETTLEMENT.—Settlement of transactions on the Exchange involve four chief steps. These are:

Comparison of Transactions.—Since purchases and sales are made only orally on the floor of the Exchange, with each member sending written reports only to his own office, it becomes necessary to compare the records of each member who has had business with another to assure that there are no discrepancies. The Distributing Department of the Stock Clearing Corporation provides a central point where records of transactions on the floor may be exchanged among members for **comparison** purposes.

Security Clearance.—For more active issues, the Stock Clearing Corporation acts as a clearing agency, transactions of each house being offset against one another, so that only the **net balance** of stock or money due need be delivered to or received from the Clearing Corporation. Thus, if a broker has sold 1,000 shares of U. S. Steel during the day, and purchased 900 shares, he will have to deliver only 100 shares, and he will be paid only for these.

For the purpose of expediting security clearance, fixed prices, known as "delivery prices," are used, usually the nearest even price to the closing bid quotation. These are printed on the stock ticker after the close of trading. Differences between actual and delivery prices are settled in cash later with the Clearing Corporation.

Actual Delivery of Securities.—Delivery is accomplished largely through the Central Delivery Department of the Stock Clearing Corporation. Delivery of securities to and from banks in connection with collateral loans is also accomplished by the Central Delivery Department, thus facilitating the rapid completion of the enormous amount of work connected with the handling of collateral loans of stock exchange members.

Clearance and Settlement of the Money Values of Security Deliveries.—This is accomplished by the Stock Clearing Corporation, which keeps a **"record sheet"** for each member on which are entered credit and debit items arising from the delivery or receipt of securities, from loans repaid or incurred, or otherwise. At the end of the day, each member's account is balanced. If he has a credit, he draws a single draft for the sum on the Stock Clearing Corporation, while if there is a debit he sends a single check covering it to the corporation. Checks are deposited by the Clearing Corporation in its bank accounts, and drafts are signed by it and paid out of these accounts.

The routine clerical work of stock and money clearings has been enormously speeded up and simplified by the installation of International Business Machine tabulating and recording equipment.

WHAT CONSTITUTES GOOD DELIVERY.—To protect buyers of securities, the Board of Governors of the Exchange has promulgated rules covering in detail what constitutes a good delivery of securities against sales. Several more important rules are:

1. Stock certificates must be accompanied by **proper assignment** executed either on the certificate itself or on a separate paper. Assignments must be witnessed by a member or the correctness of the signature guaranteed by a member or a member firm. Members, in turn, frequently want signatures unknown to them guaranteed by a bank or trust company.
2. When an assignment is filled in with the name of an individual or a firm as attorney, a **power of substitution** must be executed.
3. The **signature** on the assignment or power of substitution must correspond with the name on the certificate "in every particular without alteration or enlargement or any change whatever."
4. Where part of an issue of stock has been **called for redemption**, called certificates can be delivered only when they have been sold as such.
5. Stock certificates in the name of a corporation, a woman, a trustee or an executor, though they may be a "good transfer," are not a "good delivery."

To facilitate delivery of securities which are traded actively, rather than held by bona fide investors in strongboxes over long periods, it is customary to register certificates in the names of stock exchange houses, which then endorse them in blank. These **"street" certificates** then circulate freely from house to house, being transferred as a rule only just before dividend record dates. In view of the fact that a very large proportion of stocks held in margin accounts are registered in brokers' names, the proportion of an issue so held is sometimes used as an index to the size of the speculative position in the issue, while certificates registered in individual names are regarded as constituting a rough indication of the investment holdings of the issue.

CONSEQUENCES OF FAILURE TO DELIVER.—Failure to make good delivery constitutes a breach of the implied conditions of the contract of purchase and sale, for which the seller is liable for damages sustained. Deliberate failure may result in suspension or expulsion from the Exchange. To avoid failure to deliver, brokers for short sellers pay a substantial premium to borrow stocks when the available shares are scarce in relation to the demand for loans to cover short sales.

When delivery is not forthcoming the buying broker may, after a "failure" of several days, serve a **"buy-in"** notice upon the selling broker. This buy-in notice states that, if delivery is not made, the broker of the buyer will meet his obligation to his customer by buying the stock in the open market for cash and the resulting loss will be charged to the non-delivering broker and his customer.

The Commission House

ORGANIZATION OF A BROKERAGE HOUSE.—The average brokerage house is organized by the cooperation of **four types of partners.** These are: members of the exchange, who do the actual trading; officer partners, who are in charge of the operation of the main and branch offices; the outside or contact men, whose connections are expected to bring business to the house; and monied men, who will provide needed capital. Large commission houses usually have all four types of partners, while smaller organizations may possess only two or three.

The **departmental organization** of a brokerage house will depend largely upon its size and the extent to which it carries on other activities besides trading on the Stock Exchange, such as over-the-counter business, investment bond business, etc. The most important departments or groups of departments are:

1. Relations with Customers. The branch offices and customers' men of the main office are included in this division. It is under the management of a partner or partners specializing in contacts with customers.
2. Handling of Orders and Securities. The order department receives orders, records them and passes them on to the floor member for execution. The clearing house department is concerned with stock clearing activities, taking care of exchange transactions after orders are executed.
3. Records. The accounting work in the brokerage house is onerous. The accounting department must work in close conjunction with the

order department. It also cooperates with the margin clerks, who are engaged in watching customers' accounts to insure that required margins are maintained.

4. Cashier's Department. This department handles all cash transactions, including the important function of arranging security loans.
5. Statistical Department. A considerable volume of analytical and statistical work is required in a brokerage house, in connection with inquiries from customers, the preparation of reviews of market conditions or daily "Market Letters," studies of particular securities or industries that are distributed to present and prospective clients, etc.

REGISTERED EMPLOYEES.—The customer's man or broker in the brokerage house is the counterpart of the salesman in the investment house. He maintains personal contact with the customers of the house, almost entirely by telephone or by visits of customers to the "board room" of the house, where tickers are located. In larger brokerage offices, price changes of more important issues are indicated on an electrical wall board with movable figures.

Customers' men, in addition to their function of routine handling of orders for customers and otherwise being of service to them within the brokerage organization, are frequently expected to give advice on speculative commitments. This tends to make for wide variations in the volume of business done by individual customers' men, depending upon the success of the advice they give and the varying volume of speculative activity. The extent and character of this advice is subject to the restrictions of the Investment Advisers Act of 1940.

The New York Stock Exchange exercises complete control over its members and its allied members who constitute member firms or commission houses. These members, in turn, are responsible for the conduct of their employees, particularly those who deal with the public. To maintain standards of selection and retention of employees, the Exchange requires customers' men to register with it by filing a detailed personal history statement. Employees desiring to become **registered employees** must successfully complete a course and examination on stock exchange procedure and related subjects. Failure to observe ethical standards and adhere to the principles of just and equitable trade subjects an employee to revocation of his registered status.

The rules of the Exchange forbid the payment of a commission to customers' men based directly on the volume of orders they bring in, for this would constitute a **splitting of commission** which is prohibited by the Constitution. However, the salaries of customers' men are usually adjusted from time to time so that they correspond rather closely to the volume of business they bring in. In times of activity on the market, large houses may pay salaries approximating only 15% of the commissions created by customers' men. Smaller houses pay a higher percentage, as they may encounter greater resistance in obtaining business. In less active markets, the percentage paid tends to become higher, amounting to 25% and even 30% of the commissions created.

CUSTOMERS' STATEMENTS.—Customers of brokerage houses receive confirmations from the accounting department for each purchase of sale effected. At the end of the month, statements are mailed showing the transactions effected during the month, interest charged, dividends received, the customer's debit balance and the securities held

IN ACCOUNT WITH

TUCKER, ANTHONY & CO.

120 BROADWAY, NEW YORK

MR JOHN JONES
ADDRESS ANYWHERE

SAMPLE STATEMENT

E. & O. E.

DATE 19	SAFEKEEPING REC'D	SAFEKEEPING DEL'D	REGULAR BOUGHT OR REC'D	REGULAR SOLD OR DEL'D	DESCRIPTION	PRICE	DEBIT	CREDIT	BALANCE DR. BALANCE		BALANCE CR. BALANCE	
AUG					BALANCE SECURITIES POSITION SHOWN ON PREVIOUS STATEMENT							
2			100		GENL MOTORS	65	6 528 75					
			100		U S STEEL	75	7 531 25		14 060 00	2		
					CHECK			14 060 00	00	2		
5				100	CHRYSLER	102		10 160 00			10 160 00	5
			100		CHRYSLER	RECD						
					CHECK		10 160 00				00	5
6				100	SOUTHERN PAC	52 ½		5 214 50			5 214 50	6
15			100		SOUTHERN PAC	RECD						
					DIV DUE 100 SOUTHERN PAC CHARGE EFFECTIVE 8/30		75 00				5 139 50	15
16					CHECK		5 139 50				00	16
19			100		GENL MOTORS	63	6 328 25					
			100		BETH STEEL	105	10 535 00		16 863 25	19		
22					CHECK			16 863 25	00	22		
					INTEREST @ 1½% A/C DELAYED PAYT		2 10		2 10	22		
25					DIV 100 U S STEEL			50 00				
					DIV 100 GENL MOTORS			75 00			122 90	25
27				200	GENL MOTORS	DELD						
	100			100	BETH STEEL							
30					CHECK		122 90				00	30
AUG												
30	LONG		LONG									
	100				BETH STEEL							
			100		U S STEEL							

FIG. 2. Typical Form of Customer's Statement (Credit figures are in red)

(Note appearing at bottom of form) It is understood that any free credit balances which may accrue in any of your accounts are not deposits but are funds awaiting investment in securities and/or commodities. We suggest that you retain this statement to assist you in preparing your income tax return. Income has been reported to tax authorities. A financial statement of this firm is available for your personal inspection at its offices, or a copy will be mailed upon your written request. This Statement of Account Shall Be Deemed Correct and Shall Constitute an Account Stated Unless You Give Us Written Notice to the Contrary Within 10 Days After the Mailing Thereof To You. This agreement shall also inure to the benefit of any successors of the broker, resulting merely by withdrawals from or additions to existing firm personnel, where the customer does not indicate his nonacquiescence in such agreement.

in the account. Fig. 2 shows a sample customer's statement. Many brokerage houses have mechanized their accounting, to speed operations and reduce costs. Also, statements may be sent less frequently than once a month, where an account is not active. At least once each year, the customer may expect to receive a request from the auditor of the brokerage house asking him to verify, sign, and return the statement. If it is believed that the statement contains an error, the customer should immediately notify both the auditor and the broker.

Trading on Margin

MARGIN PURCHASE OF SECURITIES.—A purchase of securities may be for cash, a so-called "investment transaction," or **on margin,** where the customer pays down only a portion of the price of the security. The larger part of the business carried on by the average brokerage house before World War II consisted of margin transactions, for margin traders are relatively active in buying and selling as compared with investment buyers.

In a margin purchase, the customer is required to deposit with the broker, either in cash or acceptable securities, a fraction of the purchase price to protect the firm against loss. The balance is loaned the customer by the brokerage house, which obtains the funds usually by pledging the securities purchased with a bank for a collateral loan. The brokerage house may advance its own capital for the balance of the purchase price, or the stock bought may be loaned to other brokers who have sold short for their clients and wish to borrow stock in order to make delivery against the short sale.

The buyer must keep the margin good by depositing additional cash or acceptable securities in the event of a decline in prices below the minimum margin requirements. Conversely, the customer may withdraw cash or securities from his account if an advance in price should increase his margin substantially above requirements.

On the sale of a stock held on margin, the broker applies the proceeds to repayment of the debit balance due him from the customer. The balance left in the account of the customer stands to his credit, and, if he has no debit balance on account of other transactions, may be withdrawn by him or allowed to remain as a credit balance in his account.

Opening a Margin Account.—Brokers open margin accounts, as a rule, without much investigation into the credit standing of the customer. A minimum deposit of, say, $1,000 is required by most houses, with some desiring larger amounts for new accounts. Several houses open margin accounts only where customers intend to trade mainly in 100-share lots or multiples thereof. Employees of banks, stock exchange houses, trust and insurance companies may open margin accounts only with the written consent of their employers, under the rules of the Exchange.

Margin accounts may be opened with deposits of cash or acceptable securities. Only listed issues are acceptable by stock exchange members, and among these only issues which the banks will accept as collateral for loans. Standards are set for exchange members by the margin regu-

lations of the Board of Governors of the Federal Reserve System, but nonmembers have wider discretion.

Customers' Margin Requirements.—Brokerage houses check up on customers' margin requirements continuously, employing margin clerks for the purpose, to determine any deficiencies promptly so that they can call upon customers to make them good. A quick check on the margin position of a brokerage account may be made by listing all securities in the account acceptable for margin, regardless of whether they were purchased or deposited in the account, at market prices. Margin clerks usually do this in pencil to permit easy and rapid changes in figures as quotations fluctuate.

A typical margin sheet follows:

	Securities		Market Prices		Debit Balances
300	R. H. Macy	52	$ 15,600		$85,050
200	General Motors	68	13,600		
400	Steel	94	37,600		
300	Chysler	122	36,600		
5M	Consolidated Gas 5s ...	102	5,100		
5M	Rock Island 4s	80	4,000		
5M	New York Central 5s ..	101	5,050		
			$117,550		
			85,050	$32,500	

In the account above, total securities held have a market price of $117,550. It is usual to omit fractions in this calculation, since in case of liquidation of the account it is likely that sales would be made somewhat under the market, and commissions and taxes have to be deducted in any case. The debit balance is $85,050, as shown by the bookkeeper's records, leaving an equity of $32,500 for the customer, or about 28% of the market value of the securities held in the account. The adequacy of the margin depends upon the requirements of the house in relation to this particular account. If the margin is inadequate on that basis, a **margin call** is sent the customer by letter, telegram, or telephone, indicating in polite yet firm language the amount of cash, or acceptable securities, that must be added to the account to bring the margin up to requirements. By selling some of the securities in the account, the debit balance can be reduced and the margin position corrected. The New York Stock Exchange requires that customers must have a **maintenance margin** of not less than 25% of the market value of all securities "long" in the account, plus a sliding scale of margins for short sales.

REGULATION OF LOANS ON LISTED SECURITIES.—The Securities Exchange Act of 1934 provides for the regulation of the **initial margins** which members of national securities exchanges shall require from their customers in the purchase of securities. This section of the law is administered by the Board of Governors of the Federal Reserve System, which sets initial maximum loan values and regulates the withdrawal of funds and securities from margin accounts, substitutions of securities, the transfer of accounts from one member to another and special margin requirements for delayed deliveries, short sales, and arbitrage transactions.

Members of national securities exchanges, and brokers or dealers who do a security business through such members, are not permitted, directly or indirectly, to extend credit to a customer on securities registered on a national securities exchange contrary to the rules laid down by the Board of Governors. This prohibition also extends to banks and other nonmember lenders, who cannot make loans on a registered security except in accordance with the Board's requirements. Certain types of loans, however, are freed from this latter restriction.

Members of national securities exchanges and brokers and dealers transacting business through them may borrow only from member banks and nonmembers which agree with the Board of Governors to comply with restrictions applicable to member banks as regards loans extended to finance security transactions. The object of this provision is to assist the Board of Governors in regulating credit extensions on securities.

Regulation T controls the extension of credit on registered securities by members of national securities exchanges and brokers doing business through them. Regulation U applies to the extension of credit on registered securities by banks.

Like other valuable assets such as real estate, securities may be used as collateral for a loan of money to cover the purchase price or for other purposes. Historically, customers were granted credit by brokers in amounts which the latter felt were safe, depending on the quality of the security, continuity of trading, volatility of price, and the general state of the market. The broker, in turn, borrowed from his bank. Sometimes loans would amount to 90% of the market value. Margin clerks watched these accounts closely, and in a declining market there would be **margin calls** for more collateral or cash. Customers, to meet margin calls, or brokers to protect their loans with the bank, would liquidate a portion or all of the portfolio pledged. This forced liquidation at times gave rise to demoralized markets.

In 1929, brokers' loans aggregated over $9,000,000,000. To limit the creation of credit by security market activities, to restrict the use of bank credit for speculative purposes and to help maintain an orderly market, the Securities Exchange Act of 1934 delegated power to the Board of Governors of the Federal Reserve System to control customer and broker borrowing on listed securities.

It has been the policy of the Board of Governors to require an initial basic margin of at least 40%. During World War II, the loanable value of listed stocks was gradually reduced under Regulations T and U to zero by January, 1946. A year later, after a substantial market recession, the loanable value of listed securities was increased to 25% of the market value. Since 1945, a customer must maintain an equity of $500 or more to buy on margin, and stock with a sale price of less than $5.00 per share has no loan value.

RELATIONS BETWEEN BROKER AND CUSTOMER.—A number of legal decisions have defined the relations between broker and customer in the ordinary margin transaction. (Markham v. Jaudon, 41 N. Y. 235, is the leading case.) The legal relations are fourfold, as follows:

1. The broker as agent, the customer as principal, covering the execution of the order and the arrangement of the loan to carry it.

2. The broker as creditor, the customer as debtor, in so far as the debit or credit balance of the customer is concerned.
3. The broker as pledgee, the customer as pledgor, in relation to the securities purchased by the customer and held by the broker as collateral for the debit balance.
4. The broker as trustee, the customer as beneficiary. This relationship arises only where the customer pays up his debit balance. In that case, both the law and the rules of the New York Stock Exchange prevent the broker from hypothecating customers' securities. He is expected to hold them earmarked for customers' accounts and, if he fails in business, they are not to be commingled with his own assets.

Rules of the New York Stock Exchange also limit the extent to which customers' securities may be **hypothecated** for loans to what is regarded as reasonable in relation to the amount of the debit balance, regardless of agreements between broker and customer. Thus, if a customer has stocks of the market value of $10,000 in his account, and his debit balance is only $1,000, members might incur disciplinary action if they were to pledge more than enough of his securities to constitute adequate collateral for a loan of $1,000, regardless of any **hypothecation agreement** signed by the customer.

As an added measure of protection for the customers' securities, the S.E.C. promulgated two rules in 1940 governing pledging of customers' securities. The rules prohibit brokers from risking customers' securities as collateral to finance their own trading or underwriting ventures. First, brokers and dealers are forbidden to commingle securities of different customers without the consent of each customer; secondly, a broker or dealer may not commingle customers' securities with his own under the same pledge; and finally, a broker or dealer may not pledge customers' securities for more than the total amount which such customers owe him. These rules apply to business done over-the-counter as well as on an exchange.

A customer is expected to respond to margin calls promptly. If he does not, the broker must give a customer "**reasonable notice**" of his intention to offer pledged securities for sale in the market, any balance left after the sale and payment of the debit balance going to the customer, while the latter remains liable to the broker for any deficiency. The courts have interpreted "reasonable notice" to mean that the customer is given time to transmit to the broker cash or securities, if he has them available, by the fastest readily available means of transportation. Each case is decided on its own merits, but in recent cases where usual circumstances prevailed a period of 24 hours was regarded as reasonable notice.

Many brokerage houses require customers to sign **waivers of notice.** Where this is done, the broker may sell out the account when the margin is impaired without going through the formality of notice to customers. When no waiver has been signed and the account is sold out without reasonable notice, the court may order the broker to reinstate the account by repurchasing securities sold. If the market has risen in the meanwhile, this will entail serious loss to the brokerage house.

BROKERS' INTEREST CHARGES.—The ordinary commission house obtains its income from two chief sources—commissions and inter-

est. While the former are usually the more important, the latter may provide a substantial part of the revenue of the house.

Interest charges are paid by customers on their debit balances. The brokerage house itself pays interest on funds obtained by it for the purpose of carrying customers' securities, but the difference between the rate charged and the rate paid is considerable. The interest rate charged by brokerage houses is usually 2% or so more than the official call money rate, with a higher differential in the case of small accounts.

The average cost of borrowed funds to a brokerage house tends to be less than the official call money rate in normal times. Therefore, if aggregate customers' debit balances are, let us say, $20,000,000, and the house earns an average differential of 1½% between interest rates charged customers and those paid on borrowed funds, an income of $300,000 a year is secured by the house from interest alone. As interest received is not dependent upon the activity of customers' accounts, it can be a welcome stabilizing factor in the income of the house when trading activity slows down.

With the curtailment of margin trading, a number of brokerage houses now collect **service charges** quarterly or monthly on inactive accounts or those with less than a stated debit balance. Service charges are collected also for duplicate statements and other special services customers may desire.

Financing Customers' Accounts

FINANCING THE BROKERAGE BUSINESS.—The capital contributed by the partners of a brokerage house will be invested to a large extent in exchange seats, furniture and fixtures, and in contributing to some extent toward the carrying of customers' accounts. The Stock Exchange and lending banks expect the brokerage house to have free capital over and above the exchange seats, as the value of the latter is subject to the prior lien of claims on the house by other exchange members.

A balance sheet of a brokerage house, typical of a period of considerable trading and moderate borrowing by customers on margin accounts is shown in Fig. 3.

From the balance sheet presented, it is evident that the real strength of a brokerage house is the **quality of its customers' accounts.** The capital and undivided surplus of this firm, amounting to $4,729,048, is invested in part in exchange memberships and a deposit with the Stock Clearing Corporation. In the event of a sudden break in the market, it would be necessary to maintain a strict margin policy if losses, which might unduly impair the firm's free capital, are to be avoided on the $19,512,801 due from customers carrying securities with the house.

The chief income of a commission house comes from executing orders in listed securities. Houses may trade on their own account. Over-the-counter business and the distribution of new offerings provide additional sources of income to many stock exchange houses. Where such other activities are carried on, additional capital is required to help finance these operations, and because greater risk is involved than in the straight commission business on the exchange.

ASSETS	
CURRENT ASSETS:	
Cash on hand and in banks; clearing funds, etc.	$ 5,295,780
Deposits on account of securities borrowed	98,900
Receivable from Brokers or Dealers:	
Securities sold but not delivered	2,096,767
For securities carried in joint account	218,183
Receivable from customers (secured and cash accounts)	19,512,801
Market value of securities held for firm and partners' accounts	4,168,643
Revenue stamps on hand	5,038
OTHER ASSETS:	
Memberships in exchanges, at market value	233,300
Office furniture and equipment	12,420
Unsecured accounts receivable (deemed collectible)	10,907
Prepaid expenses	27,427
TOTAL ASSETS	$31,680,166
LIABILITIES	
CURRENT LIABILITIES:	
Money borrowed on securities	$12,500,000
Deposits on account of securities loaned	29,000
Payable to brokers or dealers (Securities purchased but not received)	1,905,640
Payable to customers:	
Free credits	9,649,013
Credit balances in fully secured and cash accounts	1,909,064
Other credit balances	93,403
Misc. current liabilities such as compensation, unclaimed dividends, commissions, taxes, etc.	464,998
NET WORTH:	
Estimated amount to be withdrawn by partners for payment of 1946 individual federal income taxes	400,000
Balance	4,729,048
	$31,680,166

FIG. 3. Balance Sheet of a Brokerage House

SOURCES OF FUNDS FOR BROKERS.—The most important single source of funds for brokers, outside of the partnership capital, is the **collateral loan** at the banks. These loans are arranged directly between the brokerage house and the banks or through firms of money brokers.

A call loan may be terminated by the service of notice of desire for repayment by either borrower or lender. It is repayable the same day if such notice is served before 12 M. on a business day. A **time loan** is made for a definite period of time, usually from 30 days to 3 or 6 months. When interest rates appear to be rising, lenders prefer to make call loans in order to get the benefit of the higher rates later. On the other hand, when lower interest rates are in prospect, they prefer time loans, even though the rate on the latter may at the time be substantially below the call money rate. Brokers will balance call and time loans in an effort to obtain their funds at the lowest possible average interest cost.

The Hypothecation Agreement.—After a loan is arranged between the bank and the broker, the broker sends to the bank collateral meeting the standard requirements and a **loan agreement.** In view of the fact that brokers frequently shift collateral in loans owing to the purchase and sale of securities by customers, and price changes may require additional collateral or permit the release of part of it, the agreement is in blanket form. This is a short form describing briefly the nature of the transaction, as practice has become so far standardized in connection with stock exchange loans that detailed agreements are found unnecessary.

Bank security loans to brokerage houses are watched much in the same way as are customers' margin accounts. The bank has loan margin clerks who check up on the value of collateral. To protect itself further, the bank usually requires diversification of collateral placed in loan envelopes, desiring to avoid making loans against a single issue of a volatile nature. When the collateral is found to be unbalanced, the borrower may be asked to "sweeten" it by the addition of desirable types of securities. The loan may include several types of securities, utilities, or rails as well as industrials, and bonds as well as stocks.

Other Methods of Obtaining Brokerage Funds.—In addition to call and time collateral loans, there are other sources of funds available to the broker. By **lending customers' stocks to short sellers,** he can obtain the full market value of the stock, instead of only the percentage which the bank is allowed to lend under the regulation, and also pay a lower rate of interest. In fact, if the demand from shorts is keen, the broker may be able to obtain cash against a loan of customers' stocks and actually receive a premium from the borrower, instead of having to pay interest for money he receives as security for loan of the stock.

A very important type of loan utilized by brokers is the **accommodation or day loan,** which is used to meet their financial requirements during the course of the business day, and before the amount of call loans needed can be determined with any degree of accuracy. During the day, brokers are paying out checks as customers withdraw cash and loans are called. Payments are made in the form of certified checks for securities purchased. To offset these payments, funds are received through the day from customers' deposits, payment for securities sold, and so on. The broker does not know how his account will stand at the end of the day, and he does not want to keep a large balance with the bank against the possibility of his withdrawals far exceeding his deposits. Accordingly, brokerage houses arrange with the banks to have the latter certify their checks up to some agreed-upon amount—which may be as much as $1,000,000 and more—beyond the deposit balance of the brokerage house. The New York Clearing House banks have fixed a rate of 1% per annum on such day loans. By 4 P.M., the transactions of the day are all in and the cash position of the house can be determined. If a balance is owed to the bank, a temporary loan is arranged for the net amount of the **overcertification,** or day loan, to carry it "overnight" until a new collateral loan can be arranged the following day or cash is deposited to pay off the "overnight loan."

Since the perfection of the present clearing system of settling transactions on the exchange, the amount of such unsecured day loans required has been quite substantially reduced.

RESTRICTIONS ON BROKER BORROWING.—Section 8 of the Securities Exchange Act of 1934 prohibits a member of a national securities exchange from borrowing in the ordinary course of business on any registered security except from or through a bank under the jurisdiction of the Board of Governors of the Federal Reserve System. Regulations of the Board, however, permit certain loans between brokers. The Board's Regulation U prohibits a bank from making a collateral loan secured by stock for the purpose of purchasing or carrying any registered stock in an amount exceeding the **maximum loan value** of the collateral as prescribed by the Board.

Section 8 further restricts a member broker's **aggregate indebtedness** to all other persons, including customers' credit balances, to an amount not more than **twenty times his net capital,** exclusive of fixed assets and the value of exchange memberships. Under Section 15(c)(3) the S.E.C. has promulgated, by rule, similar standards for over-the-counter broker-dealers. Definitions of what constituted indebtedness and net capital were promulgated. Field investigations are frequently made by accountant-examiners to ascertain compliance.

EXAMINATION OF MEMBER FIRMS.—To safeguard the public dealing with member houses, the New York Stock Exchange requires at least two sets of financial statements annually from each member firm, on a form prescribed by it. This is referred to as the **stock exchange "questionnaire,"** and, based upon its showing, insistence may be made by the exchange authorities that additional capital be invested in the house or that it dissolve. Failure to comply with such demands involves suspension.

An important feature of the stock exchange questionnaire is an analysis of customers' accounts, indicating the extent to which they are secured by collateral. Accounts with debit balances must be classified into those secured, those partly secured, and those unsecured, with the value of the securities indicated in each instance. In addition, the firm must be **audited** at least once a year by **independent public accountants,** and this is a surprise audit.

Bond Trading on the Exchange

THE "BOND CROWD."—The section of the Stock Exchange floor where bond dealers and brokers carry on their trading is called the "bond crowd." While some 918 bond issues are listed, on the Exchange only a fraction of these are active. Trading in listed bonds over-the-counter between dealers assumes large proportions, and generally the volume of transactions off the Exchange far exceeds that on the floor. However, published prices of sales of bonds on the Exchange largely determine the quotations at which trades are made over-the-counter in listed bonds.

To increase trading on the floor in listed bonds, the New York Stock Exchange adopted the "Fourteen Bond Rule." This requires members receiving orders to buy or sell less than $15,000 par value of a listed bond to endeavor to execute the order on the floor. The transaction may be executed over-the-counter only if a better price is thereby obtained for the customer.

The ordinary unit of trading in bonds on the New York Stock Exchange is the single $1,000 bond. So-called **"baby bonds"** of $500 and

$100 denominations can also be sold, if buyers can be found. Usually, such sales are made at fractional variations from the quotation of $1,000 bonds.

Quotations on bonds are in percentage of face value. Thus, if a bond is quoted at 89½, the price will be $895 per $1,000 bond. Bonds on which interest is being paid, unless they are income or adjustment bonds not ordered to be quoted the **regular way,** are quoted **"and interest,"** which means that an additional sum will be added to the purchase price to represent accrued interest from the last coupon-paying date to the date of purchase. Thus, a 4% bond purchased at 95, where interest is payable January 1 and July 1, if purchased on April 1 will cost the purchaser $950, plus $10 interest for 3 months to April 1, plus commission. Bonds on which interest is in default, and income and adjustment bonds on which regularity of interest payments has not been established, are quoted **"flat,"** in which event they are bought and sold like stock, that is, without payment of accrued interest by the purchaser.

In order to facilitate trading in bonds by those located at a distance from New York, trading in bonds may be made for **deferred delivery up to 7 days.** Since bonds cannot be freely borrowed for delivery on sales made from a distance, this practice has been adopted because of the growing geographical distribution of bond investment. Such sales are not separately indicated on the ticker but are reported as being made "D D" on the customer's confirmation. If delivery of bonds on the fourth day following is desired, this should be indicated, in which event the sale will be made "N D". Sales may also be made at seller's option of 30 or 60 days, to cover transactions for European account, and, at times, short sales.

WHAT CONSTITUTES GOOD DELIVERY.—Coupon bonds, to be a good delivery, must be accompanied by all unpaid coupons. Coupon bonds which are registered as to principal only will be a good delivery if registered to bearer. **Registered bonds** otherwise are not a good delivery unless sold as such, and since a freer market prevails in the coupon issues there is usually considerable price discrimination against registered bonds when efforts are made to sell them.

The rules of the Exchange provide that transactions in coupon bonds may be settled by delivery of either $1,000 or $500 denominations. Denominations below $500 or **"small bonds,"** and those above $1,000 or **"large bonds,"** are to be dealt in specifically as such, except in the case of United States issues. For these, and also for registered bonds, $10,000 denominations are good delivery.

When securities are **stamped** to indicate modification of their terms, they are not a good delivery unless the entire issue has been so marked and the Exchange duly informed of this fact. If part of an issue is stamped, it is necessary to list that part separately. Stamping is far more frequent in the case of bonds than of stock. Efforts to dispose of bonds which are not good deliveries under the technical rules of the Exchange often involve substantial price concessions from the prevailing market. When bonds are deposited with a trustee under a reorganization agreement or otherwise, separate listing must be obtained for the **certificate of deposit.**

COMMISSIONS AND TAXES ON BOND TRANSACTIONS.—Rates of commissions fixed by the New York Stock Exchange on bond transactions are:

(Excepting United States Government, Short-Term or Called Bonds)

Price per $1,000 (of Principal)	Minimum Commission Rate per $1,000 (of Principal) Bond			
	On Orders of 1 or 2 Bonds	On Orders of 3 Bonds	On Orders of 4 Bonds	On Orders of 5 Bonds or More
Selling at less than $10 (1%)...	$1.50	$1.20	$0.90	$0.75
Selling at $10 (1%) and above but under $100 (10%).....	2.50	2.00	1.50	1.25
Selling at $100 (10%) and above	5.00	4.00	3.00	2.50

U. S. Government Bonds

To Institutions:
$ 1,000 and over, but under $10.000.....1/16 plus shipping cost
10.000 and over, but under $100,000.....1/32 plus shipping cost
100,000 and over .....1/64 plus shipping cost
To Individuals:
$ 1,000 and over, but under $25,000.....1/16 plus shipping cost
25,000 and over .....1/32 plus shipping cost

As in the case of stocks, orders executed by members of the Exchange for other members carry only a fraction of these commissions.

The Revenue Act of 1942 increased the federal **transfer tax** on bonds. There is no New York State levy on bond transfers. The federal tax is 5¢ for each $100 of face value or fraction thereof, and applies on all transfers of legal title regardless of whether or not the beneficial interest in the bonds is transferred. This means that a transfer of bonds to a trust account requires the payment of the tax even though the trustee holds the bonds for the benefit of others. Transfers of federal and municipal bonds, however, are exempt from this tax.

Loans of bonds are regarded as taxable transactions by the federal tax law. Furthermore, unlike the situation prevailing in connection with loans of stock, the return of borrowed bonds is also held to be a taxable transaction.

BOND QUOTATIONS.—Bond quotations are sent out over separate tickers by the New York Stock Exchange and the New York Curb Market. Bonds are designated by their coupon rates, except that where a company or government has two or more issues that bear the same coupon rate, the year of maturity is also indicated. A specimen of bond ticker tape is given in Fig. 4.

Over-the-Counter Markets

FUNCTIONS AND IMPORTANCE.—"Over-the-counter markets" is the term used to describe trading outside organized securities exchanges. This market, though loose and informal in organization, is spread over the entire United States. With the development of better

communications and the organization of dealers into associations subject to regulation, the business has gained cohesiveness.

The functions of over-the-counter markets, like those of organized exchanges, are to provide:

1. Facilities for bringing buyers and sellers wishing to trade in securities together.
2. Marketability for the great number of securities which are not actively traded on an organized exchange.

The over-the-counter markets are an integral and important part of American financial markets and perform an indispensable service. From a qualitative point of view, they are as important as organized exchanges, although they furnish a market different in character and mode of operation. From a quantitative point of view, the lack of organization

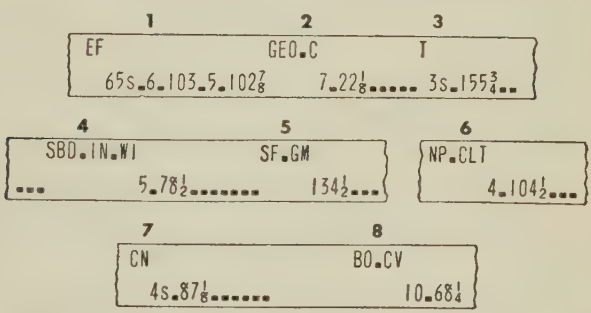


FIG. 4. Sections of New York Stock Exchange Bond Ticker Tape

Meaning of symbols in bond ticker tape illustration

1. New York Edison Co., Inc.—1965s 6 bonds at 103 followed by 5 bonds at 102⅞.
2. Central of Georgia Ry. Co.—7 bonds at 22⅛.
3. American Telephone and Telegraph Co.—3% bonds, one bond sold at 155¾.
4. Seaboard Air Line R. R. Co.—income bonds, when issued, 5 bonds at 78½.
5. Atchison, Topeka & Santa Fe Ry. Co.—general mortgage bonds, one bond at 134½.
6. Northern Pacific Ry. Co.—collateral trust, 4 bonds at 104½.
7. New York Central R. R. Co.—one 4% bond at 87⅛.
8. Baltimore & Ohio R. R. Co—convertible, 10 bonds sold at 68¼.

of the over-the-counter markets makes it difficult to measure its importance. There are two aspects to consider: (a) **volume of securities available** to be traded, and (b) **volume of actual trading** taking place, i.e., turnover. All securities, including corporate and government, bonds and stocks, listed and unlisted, are potentially available for over-the-counter trading. This vast potential volume, including securities of approximately 450,000 American corporations, is reduced because, for some, trading is done almost exclusively on exchanges while, for numerous others, the issues are closely held or too small for public trading.

The market value of all sales on national securities exchanges in the fiscal year ending June 30, 1950, aggregated $16.4 billion for stocks and $908 million for bonds. The federal debt of over $250 billion gives rise to the largest part of over-the-counter trading. Similar statistics are not

available of turnover on over-the-counter markets, since transactions are not recorded.

CLASSES OF SECURITIES TRADED.—There are three major classes of securities traded in the over-the-counter markets:

1. Unlisted stocks.
2. Government and corporate bonds.
3. New issues.

Each of these has its sub-markets and individual characteristics with respect to price determination, degree of organization, local market, and mechanics of trading. In addition, there is considerable over-the-counter trading in when-issued securities and options.

One very important part of the over-the-counter market comprises stocks of banks and trust companies. **Banks** generally do not care to have fluctuations in prices of their stocks given wide publicity, and so practically all bank stocks are unlisted. The nucleus of the over-the-counter market in each city is usually the local bank stocks. **Insurance stocks** are also important, for very few issues in this group are listed on exchanges. Many of the larger companies, however, are mutual and so do not have stock outstanding. Other important groups of stocks quoted on the over-the-counter market are smaller industrials, investment trust issues, and preferred stocks of public utility companies.

METHOD OF TRADING—NEGOTIATION.—Over-the-counter dealers effect their transactions chiefly over direct telephone connections with other dealers. The increased use of long distance telephones and teletype has expanded the scope of over-the-counter trading to national proportions.

The market for over-the-counter issues tends to become concentrated in one or a few dealers who specialize in this security and hold themselves out as making a market in it, at any time, either to buy or sell. Issues may be **sponsored** by houses which have underwritten or otherwise helped in their distribution. To establish this market, the dealer will quote regularly bid and asked prices for the security. Often, there may be a considerable spread between bid and asked prices, and the quotations may apply to only small quantities of the issue. A quotation is good only for the moment; if not immediately accepted, it may be considered to have lapsed. If, after getting "the market" quoted, it is necessary to check with the customer, the dealer may be asked to give a **firm quotation** for, say, 10 or 20 minutes.

Over-the-counter dealers operate in one of two ways. Either they try to avoid taking a position by keeping the volume of buying and selling in each issue in **balance**, or they may be willing to buy more than they sell, or vice versa, and thus take a **long** or **short position**. The policy of the house and the state of the market will largely determine the extent to which positions will be taken. Willingness to maintain a considerable position enables a dealer to give better service in executing customers' orders.

Over-the-counter houses operate mainly as dealers, buying and selling as principals rather than agents. This makes it necessary for them to depend upon the good faith of those with whom they deal to a large extent, as **oral orders cannot be enforced** at law when they involve $50 or more under the statute of frauds. Where there is doubt concerning

the good faith of a customer, **written confirmation** of the order should be obtained. Under federal regulations it is necessary for firms to disclose to customers in what capacity they are acting.

On an organized exchange, trading is usually done on an auction basis. Brokers representing buyers, along with dealers trading on their own account, crowd about the trading post and **"make a market"** by quoting bids and offers openly. But on the over-the-counter markets, trading is by **private negotiation.** A customer buys directly from a dealer, without recourse to an auction market, or his broker may negotiate for him with one or more over-the-counter dealers. If the customer or his broker negotiates with several dealers, each will not know what the others are doing. In order to assure the customer a fair price, it is often desirable in an inactive issue to get the **"feel"** of the market by calling several dealers. The best way to check an over-the-counter market is from the daily sheets of the National Quotation Bureau, Inc., which lists bids and offers filed with the Bureau by dealers and brokers, along with the name of the house in each case.

The National Quotation Bureau, Inc. makes a business of collecting these quotations and distributing a list to subscribers. These quotation sheets are not generally available to the public, but can be consulted at or through brokerage houses. There are pink stock sheets and yellow bond sheets, divided by geographical area according to trading interest —Eastern, Central, and Pacific. In addition to these daily quotations, which are in some respects advertisements of interest on the part of the dealers making insertions, monthly summaries of over-the-counter quotations are published by the National Quotation Bureau, Inc. Prices at which actual transactions have taken place are not available in the over-the-counter markets, as they are on the organized exchanges.

An Actual Transaction.—The manner in which over-the-counter trading operates may be seen from an actual case. Mr. A or his broker calls up Jones & Co., dealers in unlisted securities, and asks the market in National City Bank stock. Jones's trader knows, or learns from the National Quotation Bureau sheets, what other dealers are quoting. He tells A or the latter's broker that the market is 44 bid, 46 asked. A thereupon puts in an order to buy 50 shares at 45. At the same time, Jones & Co. learns, over the telephone, that Doe & Co. has just offered a block of 50 shares in the market at 44½. The Jones & Co. trader quickly buys these 50 shares at 44½, fills the order of A at 45, and thus makes a half-point profit.

After the execution of the order, the stock must be delivered and cash settlement made. Since there is no stock clearing machinery for over-the-counter trading, comparisons are made by sending reports of purchases and sales by messengers from one house to another. Thereafter stock certificates are delivered against certified checks. Because of the lack of a clearing mechanism, the settlement of the over-the-counter transactions ties up a much larger volume of funds in proportion to volume than do transactions on the exchanges.

There are several methods by which transactions between houses may be **cleared** in the over-the-counter markets. The most common, for firms located in the same city, is **"regular way,"** i.e., the securities must be delivered to the buying house by 12:30 P.M. of the fourth full business day following that on which the trade was made. This follows the

procedure of the New York Stock Clearing Corporation. Frequently, because of difficulties of physical delivery of the certificates, the sale is closed on a deferred or **delayed delivery** basis, which, according to custom, requires delivery on or before the seventh full business day. In case more time is required, the sale may be **seller's option**, and the seller can deliver and receive payment any time within the agreed limit by giving one day's notice. When the seller is unable to make delivery as agreed and the buyer insists, the buyer's broker may **buy in** the securities, charging any loss resulting to the seller. Sales may also be consummated for **cash**, in which case delivery and payment are to be made the same day or early the next morning. Because of delays in the transfer of stock certificates on the books of the company, delivery may be made of the receipt given by the transfer agent in lieu of stock certificates.

THE UNLISTED BOND MARKET.—In addition to the large volume of listed bonds which are traded over-the-counter, often on the basis of published prices on the exchanges, a vast number of bond issues are unlisted.

The most important group of unlisted bonds consists of **state and municipal issues.** These are generally traded in on a **yield** rather than a price basis because numerous issues of this kind mature serially and prices would differ for each maturity. Thus, a municipal issue may be quoted 2.45% bid, 2.35% asked, which means that the bid price is such as to give a yield of 2.45% to maturity, whereas the higher asked price will give a yield of 2.35% to maturity. **Certificates of indebtedness** and **Treasury bills** of the United States government are quoted similarly on the over-the-counter market.

A third important group of securities traded in on a yield basis on the over-the-counter market are **railroad equipment trust certificates.** These all have serial maturities and a list of bid and asked prices on a yield basis for each issue is available.

Other unlisted bonds are quoted on a price basis on the over-the-counter market. More important groups of issues so quoted are real estate mortgage bonds, unlisted public utility and industrial bonds and unlisted foreign bonds, including internal currency bonds quoted here.

SELF-REGULATION AND THE NATIONAL ASSOCIATION OF SECURITIES DEALERS.—Section 15A of the Securities Exchange Act provides legal sanction and encouragement of associations of securities dealers to promote investor interests and for self-regulation. Under this provision, the National Association of Securities Dealers, Inc., a nonprofit membership corporation, has been formed under the joint sponsorship of the industry, represented by the Investment Bankers Conference, Inc., and the Securities and Exchange Commission. Its membership totaled 2,800 as of June 30, 1951. Included therein are nearly all investment banking houses and most of the houses dealing in the over-the-counter markets.

Among the stated objects of the N.A.S.D. are:

1. To promote through cooperative effort the investment banking and securities business, to standardize its principles and practices, to promote therein high standards of commercial honor, and to encourage and promote among members observance of federal and state securities laws.

2. To provide a medium through which its membership may be enabled to confer, consult, and cooperate with governmental and other agencies in the solution of problems affecting investors, the public, and the investment banking and securities business.
3. To adopt, administer, and enforce rules of fair practice and rules to prevent fraudulent and manipulative acts and practices, and in general to promote just and equitable principles of trade for the protection of investors.
4. To promote self-discipline among members, and to investigate and adjust grievances between the public and members and between members.

The N.A.S.D. seeks to go beyond the limited objectives of the law. Its primary concern is with principles, business morals, and ethics—the spirit rather than the letter of the law.

With the organization of the N.A.S.D., there is now, for the first time, an authority (1) to set standards of conduct not only for dealings between members but also covering relations with the investing public, and (2) to secure adherence to these standards through disciplinary measures—censure, fines or expulsion. Expulsion is a serious matter because the Act provides preferential treatment as regards commissions, and allowances may be limited to members. This provision reads:

> The rules of a registered securities association may provide that no member thereof shall deal with any nonmember broker or dealer except at the same prices, for the same commissions or fees, and on the same terms and conditions as are by such member accorded to the general public. [Sec. 15A (i) (1).]

To implement N.A.S.D. objectives, **rules of fair practice** have been adopted to guide members' business practices and to raise standards of the over-the-counter dealers and brokers. Rule 1 provides:

> A member, in the conduct of his business, shall observe high standards of commercial honor and just and equitable principles of trade.

The Board of Governors of the N.A.S.D. has interpreted Rule 1 as follows:

> It shall be deemed conduct inconsistent with just and equitable principles of trade for a member to enter into any transaction with a customer in any security at any price not reasonably related to the current market price of the security.

The Association has sought to keep **mark-ups** of asked over bid prices of its members from exceeding 5%, as tending to be excessive.

The rules provide further:

> . . . if a member buys for his own account from his customer, or sells for his own account to his customer, he shall buy or sell at a price which is fair, taking into consideraton all relevant circumstances, including market conditions with respect to such security at the time of the transaction, the expense involved, and the fact that he is entitled to a profit; and if he acts as agent for his customer . . ., he shall not charge his customer more than a fair commission or service charge. . . . (Rule 4.)

Other rules impose upon members responsibility for recommendations made to customers; impress upon them the obligations of the fiduciary capacity in which they, at times, serve; the necessity to disclose the

capacity in which they are acting for or with customers; and forbid transactions of a manipulative, deceptive, or fraudulent character.

Another phase of the N.A.S.D.'s work has been the preparation of a **Uniform Practice Code** designed to eliminate disputes and misunderstandings between members. For the most part, the Code gives sanction to practice, custom, and usage in technical matters such as deliveries of securities, computation of interest, claims for dividends or interest and similar matters. **Complaints** or requests for arbitration may be filed either by members of the N.A.S.D. or by the public. These will be investigated, heard, and decided by one of the 14 District Business Conduct Committees. The decisions of this Committee are subject to appeal and review by the Board of Governors of the N.A.S.D. and, finally, by the Securities and Exchange Commission.

The N.A.S.D. has, in its own and the public interest, sought to improve over-the-counter market quotations and the adequacy of invested capital of its members. Also, the N.A.S.D. requires officers, partners, employees, or other representatives of a member

> . . . engaged in the managing, supervision, solicitation, or handling of listed or unlisted business securities; or in the trading of listed or unlisted securities; or in the sale of listed or unlisted securities on an agency or principal basis; or engaged in the solicitation of subscriptions. . . .

from the public to file a detailed personal data sheet in order to become **registered representatives** authorized to deal with the public. Registrants must agree to abide by the Rules of Fair Practice of the N.A.S.D. and, further, to be subject individually to appropriate disciplinary action in the case of violation. This registration is designed to provide more adequate control over the individuals who transact business directly with the public. It is one more link in the chain of self-regulation.

Federal Regulation of Securities Trading

THE SECURITIES EXCHANGE ACT OF 1934.—The Securities Exchange Act of 1934 (hereinafter referred to as the "Exchange Act") was enacted as a result of the financial collapse which occurred in the early 1930's. Congressional and other inquiries into the causes of that depression had revealed shortcomings in the nation's financial system, malpractices, and some flagrant abuses. The Exchange Act was one of several statutes passed at the time to strengthen and improve the nation's financial machinery.

Objectives of the Act.—The Exchange Act is designed to accomplish the following purposes:

1. **Make available to the public reliable information** regarding securities listed on national security exchange, and their issuers, to facilitate appraisal of values by investors and other interested parties.
2. **Eliminate fraud, manipulation and other abuses** in security trading, both on the organized exchanges and in the over-the-counter markets, to the end that **fair and orderly markets,** free from artificial influences, are maintained.
3. **Insure that just and equitable principles of trade are observed** by exchange members and others executing security orders for the public.

4. Regulate the use of the credit in securities trading.
5. Regulate trading by "insiders" in listed securities and the use of proxies by corporations whose shares are listed.

Chief Provisions of the Act.—These objectives of the Exchange Act are implemented by three types of registration: registration of (1) securities, (2) exchanges, and (3) broker-dealers, or things, places, and persons.

1. **Registration of securities** is one of the primary methods used to achieve the objectives of federal financial legislation. Section 12 requires issuers of securities listed on national securities exchanges to file extensive data with the S.E.C. for the information of investors and the general public. A full and fair disclosure of material facts in a nonmisleading fashion is the aim, so as to place investors on a more equal footing with respect to availability of information and equality of opportunity.

2. **Registration of exchanges** and the regulation of their conduct constitute the second pillar upon which securities regulation rests. Registration includes filing of pertinent data with respect to the exchanges' organization, rules of procedure, membership, and other information deemed in the public interest. Among other things, registration includes an agreement by the exchange to comply with the provisions of the Exchange Act and rules and regulations promulgated thereunder, and to enforce, so far as it is within its powers, similar compliance by its members.

3. **Registration of broker-dealers** is the third pillar upon which federal securities regulation is based. Direct control of the brokers and dealers is attained by denying the use of the mails, or of any instrumentality of interstate commerce to effect any transaction in securities unless a person is registered with the Securities and Exchange Commission. Registration is accomplished by filing with the S.E.C. detailed information with respect to the personal and business history of the registrant and his firm.

Section 15(b) makes it mandatory for the Commission to deny or revoke the registration of any broker or dealer if it finds that such denial or revocation is in the public interest and that such broker or dealer, or any partner, officer, or director of such broker or dealer

a. Has willfully made in any document required to be filed or in any proceeding before the S.E.C. a false or misleading statement which was at the time, or in the light of the circumstances under which it was made, false or misleading with respect to any material fact.
b. Has been convicted, within 10 years, of a felony or misdemeanor involving the securities business.
c. Is permanently or temporarily enjoined by a court from engaging in the conduct of securities business.
d. Has willfully violated any provision of the Securities Act of 1933 or of the Exchange Act of 1934 or rules and regulations thereunder.

Through such control and the setting of minimum capital requirements, the public is to be protected from disreputable or financially irresponsible brokers and dealers.

Authority to **regulate the extension of credit** for the purpose of carrying securities is lodged in the Board of Governors of the Federal Reserve System. The administration of the regulation as it affects

brokers and dealers is in the hands of the staff of the Securities and Exchange Commission. (For a discussion of security credit regulation, see prior paragraphs in this Section.)

ADMINISTRATION OF THE EXCHANGE ACT.—The Exchange Act is not a self-executing statute. It is administered by a five-man commission, no more than three of whom may be from the same political party. As an adjudicatory tribunal and administrative agency, it is subject to the accepted rules of **administrative law,** including the right to be heard, the weighing of evidence, adherence to legislative directives and **due process.** As is true of many other agencies, orders of the S.E.C. are published in the Federal Register and are reviewable by the U. S. Circuit Court of Appeals.

Administration of the Exchange Act has evolved gradually in the light of experience. The approach of the S.E.C. has been pragmatic. Policies and rules have been flexible and adapted to legitimate business needs. Close liaison has been maintained with those subject to its rules.

Registration of Securities.—

1. Procedure in registration. Section 12 of the Securities Exchange Act forbids trading in any security on a national exchange unless the security is either registered or exempt. The purpose of this provision is to make available for the investor adequate and current information regarding the affairs of companies whose securities are listed, or are to be listed, on a national securities exchange. Section 12 specifies the general nature and scope of the information to be furnished.

Registration of a security is effected by the issuing corporation filing an application with the exchange containing such information regarding the security and the company as the statute and its regulations require. A duplicate original must be filed at the same time with the S.E.C. If the exchange authorities approve the security for listing, registration becomes effective 30 days from the date on which the Commission receives certification of the exchange's approval, or within a shorter period if the S.E.C. accelerates the effective date. In practice, most applications are accelerated.

Registered securities include both listed securities and securities admitted to unlisted trading on a national securities exchange. Although issuers of securities admitted to unlisted trading do not have to furnish complete data, other provisions of the statute, such as prohibitions against manipulation, etc., are applicable.

A detailed examination is made of applications for registration and supplementary periodical reports to determine whether they provide adequate disclosure of the required information. When it is discovered that material information has been omitted or that sound accounting practices have been violated, the registrant is so informed and correcting amendments are required.

To supply the **information required for registration,** several forms have been developed for basic registration of a security under the Exchange Act. Each registrant is required to file an application on the form appropriate to the particular type of issue or issuer involved. Nonfinancial as well as financial information is required. The data must include all pertinent material facts and must be set forth in such

manner as not to be misleading. Detailed information and documents must be filed with respect to:

1. Organization, financial structure, and nature of business.
2. Description of the various classes of securities outstanding.
3. The terms upon which the applicant's securities are to be, and during the preceding three years have been, offered to the public or otherwise disposed of.
4. Directors, officers, and underwriters, and each holder of record owning more than 10% of any class of stock or securities convertible into stock or carrying warrants to purchase stock, and independent warrants to purchase stock; also their remuneration and important contracts they have with the issuing company or any company controlling it or controlled by it.
5. Remuneration exceeding $20,000 per annum paid to others than directors and officers in one year.
6. Bonus and profit-sharing arrangements; management and service contracts; and options outstanding on the applicant's securities.
7. Balance sheets and profit and loss statements for not more than the last 3 preceding years, certified by independent public accountants if so required by the Commission; and any further financial statements which the Commission may deem necessary.
8. Copies of such trust indentures, underwriting arrangements, and other similar documents, and voting trust agreements, of both the issuing company and any affiliated company, as the Commission may require.

Continuance of registration upon a national exchange is dependent upon the filing of (1) current reports in the event that certain material changes occur in the affairs of the issuer, and (2) annual reports within 120 days (unless an extension is granted) after the close of the company's fiscal year. These reports are designed to bring up to date the information contained in the application for permanent registration.

A registrant may request **confidential treatment** for data. Objections to disclosure, for the most part, have related to sales figures, an itemized breakdown of the cost of sales, and, in many instances, the publication of salaries and other remuneration paid to officers and directors. It has been the S.E.C.'s policy to deny confidential treatment on the ground that the statute requires a full and complete disclosure of each registrant's financial condition in order to protect public investors against manipulation of securities by "insiders." The courts have upheld the S.E.C. and stated that it properly exercised its discretion by considering the alleged danger of harm and by weighing the request in the scale of public interest. Recently, in conformity with the policy of disclosure, the S.E.C. has required that registrants make **quarterly statements** of sales and earnings if they keep their books on that basis, and a full and prompt disclosure of important developments such as termination of contracts of major importance to the company.

In cases of **withdrawal of registration,** Section 12(d) of the Exchange Act provides, with respect to applications by an issuer or an exchange to delist securities, that a security may be stricken from listing and registration in accordance with the rules of the exchange and upon such terms as the S.E.C. may deem necessary for the protection of investors.

Applications by exchanges to delist securities almost invariably are occasioned by an event which practically terminates public interest in the security involved. The most frequent reasons given in applications

filed by exchanges for delisting are that the greater part of an issue has been exchanged for other securities; that the issuer is in process of liquidation; or that the security is greatly reduced in amount outstanding or has become nearly worthless.

Applications by an issuer to delist must set forth the reasons for the proposed delisting and material facts relating thereto, as well as any facts it wishes to offer with respect to the advisability of imposing conditions. On occasion the issuer has been required to notify holders of the security of the proposal to delist and of their right to present their views to the S.E.C. with respect to the imposition of terms. Conditions have been attached in some cases, usually a requirement that the issuer secure the approval of a majority of the holders of the security in question.

2. **Accounting requirements and standards.** The heart of the full disclosure requirement is the regulations governing the financial statements. The S.E.C. may prescribe the form and details of the balance sheet and earnings statement, and methods to be followed in the preparation of reports, the valuation of assets and liabilities, the determination of depreciation and depletion, differentiation between recurring and nonrecurring, investment and operating income, and, where the Commission deems it necessary or desirable, the consolidation of statements. The S.E.C. has sought constantly to determine what is desirable and necessary to satisfy the requirements of full and frank disclosure in a non-misleading fashion.

On April 24, 1938, in its Accounting Release No. 4, the S.E.C. stated its **administrative policy on financial statements** as follows:

> In cases where financial statements filed with this Commission pursuant to its rules and regulations under the Securities Act of 1933 or the Securities Exchange Act of 1934 are prepared in accordance with accounting principles for which there is no substantial authoritative support, such financial statements will be presumed to be misleading or inaccurate despite disclosures contained in the certificate of the accountant or in footnotes to the statements provided the matters involved are material. In cases where there is a difference of opinion between the Commission and the registrant as to the proper principles of accounting to be followed, disclosure will be accepted in lieu of correction of the financial statements themselves only if the points involved are such that there is substantial authoritative support for the practices followed by the registrant and the position of the Commission has not previously been expressed in rules, regulations, or other official releases of the Commission, including the published opinions of its chief accountant.

To supplement this general policy the Commission, in 1940, adopted a comprehensive, basic accounting regulation (Regulation S-X) governing the form and content of most of the financial statements filed under the Securities Act of 1933 and the Exchange Act.

To provide for **auditors' examinations and reports,** Regulation S-X requires that all financial statements be audited by an independent public accountant whose **certificate** shall

1. Contain a reasonably comprehensive statement as to the scope of the audit; and
2. State whether the audit was made in accordance with generally accepted auditing standards.

Furthermore, the certificate must state clearly:

1. The opinion of the accountant in respect of the financial statements covered by the certificate and the accounting principles and practices reflected therein; and
2. The opinion of the accountant as to any changes in the accounting principles or practices or adjustment of the accounts which have been made during the period under review.

In addition to requiring an adequate audit and a clear-cut statement of opinion on the accounting practices, the Commission, to assure reliable financial statements, has insisted that auditors conform to high professional qualifications. In order that auditors have complete impartiality in their review and report, the Commission has required that they be completely **independent of the client** whose financial statements they certify. An auditor having a substantial financial interest in a client, or one who is a director, officer, or employee, is specifically proscribed. Acting in such manner as to "consistently submerge his preferences or convictions as to accounting principles to the wishes of his client is not in fact independent," it has been ruled.

3. **Ownership reports and insider trading.** Section 16 of the Exchange Act provides that each officer and beneficial owner of more than 10% of any class of registered equity security must file with the S.E.C. and the exchange reports showing his holdings in the company's equity securities, and must report each month thereafter any changes which may occur in his holdings. A monthly summary of such reports is published by the S.E.C. Profits realized by any of these persons from transactions completed within 6 months in equity securities of corporations with which they are so associated may be recovered by the corporation, or by any security holder in its behalf. This provision is based on the principle that the confidential information which a corporate insider automatically obtains by virtue of his position belongs, in a real sense, to the corporation, since he acquired it confidentially in his capacity as an official or principal stockholder, and should not be used for short-term trading purposes. It has been upheld in the courts. [Smolowe v. Delendo Corp., 136 F. (2d) 231; certiorari denied 320 U. S. 751 (1943); and Upson v. Otis, 152 F. (2d) 606 (1946).]

4. **Proxies, disclosure of policies, and corporate democracy.** Under the Securities Exchange and other Acts which it administers, the S.E.C. prescribes rules and regulations concerning the solicitation of proxies, consents, and authorizations from holders of securities of companies subject to those Acts.

The essence of the rules now in force is that it is unlawful to make a solicitation which is false or misleading as to any material fact, or which omits to state any material fact necessary to make statements already made not false or misleading. The person solicited is to be furnished information which will enable him to act intelligently upon the matter. (Further discussion of this point belongs under a discussion of Corporate Stocks.)

Regulation of Trading—Fair and Orderly Markets.—The second major objective of securities regulation is to secure a **fair and orderly market,** where prices of securities reflect demand and supply based at least to some extent on informed judgment, unimpeded by artificial manipulative or deceptive devices.

1. Registration and reorganization of the exchanges. The first step to secure that objective was the registration and reorganization of the exchanges. Sections 5 and 6 of the Exchange Act require that national security exchanges register by filing information concerning their constitution, by-laws, and rules and regulations governing memberships, trading procedure, and operations.

Section 6(b) provides:

> No registration shall be granted or remain in force unless the rules of the exchange include provision for the expulsion, suspension, or discipline of a member for conduct or proceeding inconsistent with the just and equitable principles of trade, and declare that the willful violation of any provisions of this title, or any rule or regulation thereunder, shall be considered conduct or proceeding inconsistent with just and equitable principles of trade.

Pursuant to Congressional directive, the S.E.C. made a study of the organization of securities exchanges and submitted a **report on the government of stock exchanges.** It recommended extensive changes in the organization of national securities exchanges to permit more democratic control in conformity with the growing recognition that they are public institutions. In 1937, at the request of the S.E.C., the New York Stock Exchange instituted steps leading to the reorganization referred to above in this Section. Through this reorganization interested groups like customers—through public representatives—and allied and out-of-town firms received substantial representation in the Board of Governors.

2. Power of the Commission to alter rules and practices of exchanges. The Commission has broad supervision over the rules, methods, and practices of national securities exchanges. After giving an opportunity to be heard, it can compel the exchange to alter its rules and practices in any manner deemed necessary for the protection of investors and the general public. These powers extend to such matters as the financial responsibility of members, trading hours, methods of soliciting business, reporting of transactions on the exchange, fixing of reasonable rates of commission, minimum units of trading, odd-lot purchases and sales; activities of "specialists" and trading by members on their own account either on or off the floor. Changes ordered by the Commission must be based on the necessity of protecting investors and insuring a **fair and orderly market** and adherence to **just and equitable principles of trade.** The Commission can also prescribe the form of accounts which members of the exchanges and those dealing through them shall keep, require reports, and set up a system of examination of their accounts.

In 1936, the S.E.C. reported to Congress on the **feasibility and advisability of the complete segregation of the functions of dealer and broker.** As a result of this study, segregation was not advised but 16 rules for the regulation of trading on exchanges were recommended and substantially adopted by the exchanges. The rules place certain restrictions upon trading for their own account by members and seek to bar transactions which are excessive in view of the financial resources of the member or the state of the market for the security; contain a prohibition against joint accounts in which both members and nonmembers are interested without the prior approval of an exchange; and

include a requirement that transactions effected for joint accounts and interests in joint accounts be reported to the exchange. Moreover, members are prohibited from effecting on the floor discretionary transactions in which the discretion exceeds the right to choose the time and the price of the security involved. Other provisions limit the right of a member, while acting as a broker, to effect transactions for his own account in a security for which he holds a customer's order. The rules prohibit members holding options in a security from effecting transactions in that security. Six of the proposed rules deal specifically with specialists and provide that no member should act as a specialist in any security unless registered as such by the exchange; that a specialist's transactions should be limited to those reasonably necessary to permit the specialist to maintain a fair and orderly market; that the specialist should not participate in any joint account except with a partner or another member; that the specialist should keep a legible record of his orders for a period of at least 12 months; and that the specialist should not hold puts, calls, or other options in any security in which he is registered as a specialist. Similar rules govern the conduct of odd-lot dealers.

The **multiple trading** case illustrates the use of the S.E.C.'s power to alter trading rules over the objection of an exchange. Over the years, regional exchanges have developed so-called "multiple trading" practices effecting transactions upon their floors in securities which are also traded on the New York Stock Exchange. By these methods, prices on the regional exchange are determined by New York Stock Exchange quotations reported on the ticker. Members of the New York Stock Exchange who are members also of regional exchanges participate in their "multiple trading" by acting as odd-lot dealers or specialists on the regional exchanges in these issues. The New York Stock Exchange, by an interpretation of its Constitution, sought to bar its members from such activities. After an analysis of the effects of this action, the S.E.C. formally requested the New York Stock Exchange to

> . . . effect such changes in its rules, . . . as may be necessary to make it clear that the rules of the exchange, or their enforcement, shall not prevent any member from acting as an odd-lot dealer or specialist or otherwise dealing upon any other exchange outside the City of New York of which he is a member.

Upon the Exchange's refusal to comply with this request, proceedings were instituted and, after weighing all arguments, the S.E.C. found "multiple trading" in the public interest and ordered the change to be made effective.

3. Prohibition of price manipulation. Sections 9, 10, and 15 of the Securities Exchange Act of 1934 prohibit, or empower the Commission to prohibit, manipulation, and authorize the regulation of deceptive devices. Section 9 prohibits specifically described forms of manipulative activity. Transactions which create actual or apparent trading activity or which raise or lower prices, if they are effected for the purpose of inducing others to buy or sell, are declared to be unlawful. "Wash sales" or purchases and sales at about the same time by the same party, and "matched orders" or transactions between individuals acting in concert to "paint the tape," are declared to be illegal. Persons selling or offering securities for sale are prohibited from disseminating false information to the effect that the price of the security will, or is likely to, rise or fall

because of market operations conducted for the purpose of inducing the purchase or sale of such securities. Sections 10 and 15 empower the Commission to adopt rules and regulations to define and prohibit the use of new forms of manipulation which the Commission may encounter.

The Commission has stated that its aim in administering the provisions against stock market manipulation is to eliminate manipulative practices without interfering with the legitimate functioning of these markets. In carrying out its duties, the S.E.C. has continuously maintained alert surveillance of trading activity. Where there is unusual market activity, a "flying quiz" or preliminary investigation is made to detect and discourage incipient manipulation by prompt determination of the reason for unusual market behavior. Where apparent violations are uncovered, formal investigatory proceedings are instituted. These have, on occasion, resulted in suspension and expulsion from the exchange and/or suspension or revocation of broker-dealer registration.

4. **Stabilizing security prices.** Historically it has been the custom to peg the price of a security offering, whether a primary distribution, a secondary distribution, or a pool liquidation. Almost all distributions—primary, secondary, or special offerings—are at a fixed price. Most of them provide for stabilizing purchases by the managing underwriter or offeror, usually up to 10% of the offering.

Section 9(a)(6) of the Exchange Act forbids the "pegging, fixing or stabilizing" of security prices in contravention of such rules and regulations as the Commission may prescribe as necessary or appropriate in the public interest or for the protection of investors. The Senate Committee on Banking and Currency, in discussing the regulatory powers conferred on the Commission, stated:

> Practices such as pegging, fixing, or stabilizing the price of a security are subjected to regulation by the Commission, which is authorized to prescribe such rules as may be necessary or appropriate to protect investors and the public from the vicious and unsocial aspects of these practices.

In March, 1940, the Commission issued a release on this subject in which it stated, in part:

> The Commission is unanimous in recognizing that stabilizing is a form of manipulation. The statute itself so recognizes. The Commission also agrees that stabilizing in many respects is undesirable. That, too, is implicit in the statute. Nevertheless, the majority of the Commission considers that merely to point to the evils attendant upon stabilizing poses the problem but does not answer it. The question of how to deal with stabilizing as it exists today cannot be answered by theory alone. It is an intensely practical problem which, for the present, must be solved in terms of the existing financial machinery . . . the Commission is not now prepared to say that, under existing conditions, all stabilizing should be wholly prohibited. Nor is the majority of the Commission content to allow stabilizing to continue unregulated. . . . (Exchange Act Release No. 2644)

The S.E.C. requires the filing of detailed reports respecting all stabilizing operations conducted to facilitate the distribution of security offerings under the Securities Act of 1933. Abuses have been most prevalent in connection with stabilizing quotations in connection with so-called "market offerings" where the price is represented to be at, or based upon, open market prices established by the ebb and flow of supply and

demand. Stabilizing of such market offerings is now severely restricted. "Mark-up" of prices is prohibited. Regulation X-9A6-1 prohibits rigid "pegging" of the market. Since stabilizers on each day can buy only on a scale-down until the price has dropped by a fixed amount, these rules in effect permit no more than limited stabilization during the distribution.

The regulation requires stabilizers to give notice of their intention to stabilize. If stabilizing has actually been commenced, that fact must also be disclosed. A **"maximum price"** must be set beyond which the stabilizers will not support the market.

5. **Control of short selling.** Establishing of control over short selling is designed to prevent demoralization of the market, disorderly trading and bear market raids. These restrictions are discussed above.

6. **Margin regulation.** The Board of Governors of the Federal Reserve System is charged with prescribing regulations governing the extension and maintenance of credit on registered securities to prevent the excessive use of credit to purchase or carry such securities. Under Section 7 of the Securities Exchange Act, the Board adopted Regulation T, governing the extension of credit by broker-dealers to customers, and Regulation U to govern loans by banks for the purpose of carrying stocks registered on the Exchange.

Although the Board formulated these rules, the S.E.C. has the responsibility to enforce them. Routine inspections of books and records are made to assure compliance with Regulation T and to explain the meaning and effect of the regulation. In conformity with a policy of having the exchanges assume responsibility for the conduct of their own members, inspection by the S.E.C. has been largely confined to over-the-counter firms.

7. **Daily statistics of trading.** Supplementing the **disclosure required for individual securities,** the S.E.C. has made available data on **trading activity.** These throw light on the technical condition of the market and aid the regulatory authorities in their efforts to maintain a fair and orderly market. Daily reports are issued on the volume of purchases and sales made for their own account by specialists, odd-lot dealers, and other members while on the floor and off the floor. Reports on short sales, securities borrowed, and officer, director, and principal stockholder securities transactions are published in regular statistical releases of the S.E.C.

Regulation of Brokers and Dealers.—The third fundamental objective of federal securities regulation is **maintenance of just and equitable principles of trade** through regulation of trading activities of broker-dealers. This is important because of the relationship of trust which exists between the customer and the broker-dealer who solicits his business. Maintenance of solvency and protection of customer's funds and securities from embezzlement or improper hypothecation are the major aims. It is also sought to eliminate overreaching or fraudulent practices and to foster high fiduciary standards among those who do business with the investing public, many of whom are people of small means.

Registration of broker-dealers is the principal method for achieving this objective. Regulation of exchange members and member firms is

highly developed. Control of over-the-counter broker-dealers and their activities, because of the decentralized character of their business and the lack of central organization, has not gone so far.

1. Registration of broker and dealers. Under Section 15 of the Exchange Act, brokers and dealers, other than those whose business is exclusively intrastate, must register with the S.E.C. in order legally to make use of the mails or instrumentalities of interstate commerce in connection with transactions in any security, except an exempted security or transaction. Registration consists of filing a detailed personal and business history statement and agreeing to observe the federal regulations.

Section 15(d) gives the S.E.C. power to suspend or revoke registration for practices and acts "inconsistent with the just and equitable principles of trade." People who have violated the securities acts and/or regulations thereof, or have been convicted of securities fraud, or have made willful misstatements about a material fact to customers or in a filing to the S.E.C. may be denied registration or have their registration revoked.

2. Self-regulation. It has long been the view of the S.E.C. that the securities industry should be responsible, in the first instance, for its own business practices and standards and adherence to them by members of the trade. The already organized stock exchanges have been charged with responsibility to establish such standards and to see that they are observed. A similar program of self-regulation for the over-the-counter markets has been the objective of the specially created National Association of Securities Dealers.

As a governmental agency, the S.E.C. stands in the background and is the second line of defense against practices inimical to the public interest. The Commission reviews the actions, or lack of action, of the exchanges and the N.A.S.D. with respect to maintaining just and equitable principles of trade and fair and orderly markets. Upon petition, formal disciplinary action of these business organizations will be reviewed by the S.E.C. To implement this second line of protection, the S.E.C. maintains constant surveillance of trading activities of broker-dealers by inspections, "flying quizzes," and formal investigations. A third line of public protection exists in criminal prosecution by the Department of Justice for fraudulent or other acts violating established law. Such prosecutions are often based upon the findings revealed by investigations of the S.E.C.

3. Broker-dealer inspection. A broad program of broker-dealer inspections is carried on by the staff of the S.E.C. to ascertain compliance with the Act and its regulations. Inspections made by accountant-investigators attached to regional offices are designed to educate brokers and dealers in the legal requirements of the federal securities laws and the rules promulgated thereunder, as well as to check compliance and to detect and prevent fraudulent practices. These investigations also aid in correcting practices which, though not fraudulent, fall short of representing good business standards. Such inspections may afford information useful in appraising the need for new regulations or for changes in existing regulations to protect the public interest.

As a result of its investigations the S.E.C. has frequently found it necessary to invoke the sanctions of the Act to protect the public inter-

est. Fraudulent practices have been enjoined, registration suspended or revoked, and, occasionally, criminal prosecution by the Department of Justice has been instituted.

4. **Transactions at unreasonable prices.** Among the most serious violations of the acceptable business relationships between dealer and customer is the sale of securities by dealers to customers at prices which involve **no reasonable relation to the prevailing market.** The doctrine that it is fraudulent for a dealer to sell securities to customers at prices bearing no reasonable relation to the prevailing market without disclosing the market was established in **Duker & Duker** [6 S.E.C. 386 (1939)], followed by a number of other cases involving similar business conduct.

In substance, the Commission holds that a special obligation upon the dealer flows from inherent characteristics of the business of dealing in securities. The dealer holds himself out as one with specialized knowledge and skill in securities markets and investment matters generally. He cultivates his customer's trust and confidence in him and invites reliance on his skill and honesty. That there is an inherent representation that he will deal fairly is plain from his confidential relationship. In the absence of an express representation to the contrary, there is implied the representation that the price is closely related to the current market. The duties of the dealer, under such circumstances, are not measured by the rules which apply to arm's-length bargaining; he is bound to higher standards because of the unique position which he occupies.

This view of the doctrine of fraud has been applied chiefly in cases involving pricing of corporate securities, but with modifications it was applied also in a revocation proceeding in which **sales of oil royalties** were the subject of the Commission's complaint. [Lawrence R. Leeby, 13 S.E.C. 499 (1943), Release No. 34–3450.] In that proceeding the Commission's order revoking registration was based upon the finding that the firm in transactions with two women customers, was charged with the high fiduciary obligation of an agent and that this obligation had been violated repeatedly in taking secret profits at the expense of the customers. The Commission held that the duty of fair dealing at fair prices rests on dealers in oil royalties as it does on dealers in the more conventional types of securities. Since oil royalties do not have a market comparable to that which exists for corporate securities, it was necessary for the Commission to resort to other tests to determine the fairness of retail prices charged for oil royalties. The Commission concluded, with certain reservations, that "the least required of a dealer by the standards of fair dealing is that, unless special circumstances appear, he must charge a price bearing a fair relation to the current wholesale price." The S.E.C. held that in charging retail prices having no fair relation to the current wholesale prices, without disclosing the magnitude of its mark-ups, the firm omitted to disclose material facts necessary to make its general representation as a dealer not misleading and that its conduct operated as a fraud on the customers.

5. **Revocation of registration of broker-dealers.** The Commission in one case issued an order revoking registration for violating the Exchange Act, and its application of the fraud doctrine to sales of securities at prices bearing an unreasonable relation to prevailing market quo-

tations was subjected to judicial review for the first time. [Charles Hughes & Co., Inc. v. S.E.C., 139 F. (2d) 434 (C.C.A. 2, 1943), cert. den. 321 U. S. 786 (1944).] The Commission had found that the firm had violated the fraud provisions of the Securities Act and the Securities Exchange Act in dealings with women customers to whom it had sold securities at prices from 16.1% to 40.9% in excess of the prevailing market, without disclosing prevailing market prices to them. In its opinion, the S.E.C. said:

> In the setting in which respondent effected the foregoing and other transactions with these customers, the approach and entire conduct of respondent were intended to induce an atmosphere of trust and confidence, of which the respondent took gross advantage. . . .
>
> Fundamental to the issue before us is the premise that any person, regardless of his knowledge of the market or his access to market information, is entitled to rely on the implied representation, made by a registered dealer in securities, that customers will be treated fairly.

The Federal Circuit Court of Appeals sustained the Commission's order. In its opinion, the court said:

> An over-the-counter firm which actively solicits customers and then sells them securities at prices as far above the market as were those which petitioner charged here must be deemed to commit a fraud. It holds itself out as competent to advise in the premises, and it should disclose the market prices if sales are to be made substantially above that level. Even considering petitioner as a principal in a simple vendor-purchaser transaction . . . it was still under a special duty, in view of its expert knowledge and preferred advice, not to take advantage of its customer's ignorance of market conditions. The key to the success of all of petitioner's dealings was the confidence in itself which it managed to instill in the customers. Once that confidence was established, the failure to reveal the mark-up pocketed by the firm was both an omission to state a material fact and a fraudulent device. When nothing was said about market price, the natural implication in the untutored minds of the purchasers was that the price asked was close to the market. The law of fraud knows no difference between express representation on the one hand and implied misrepresentation or concealment on the other. . . .

Concluding that the S.E.C. had "correctly interpreted its responsibilities to stop such abusive practices in the sale of securities," the court placed special emphasis on the importance of a reasonable price in securities transactions.

> The essential objective of securities legislation is to protect those who do not know market conditions from the overreachings of those who do. Such protection will mean little if it stops short of the point of ultimate consequence—namely, the price charged for the securities. Indeed, it is the purpose of all legislation for the prevention of fraud in the sale of securities to preclude the sale of "securities which are in fact worthless or worth substantially less than the asking price." People v. Federated Radio Corp., 244 N. Y. 33, 40, 154 N. E. 655, 658. If after several years of experience under this highly publicized legislation we should find that the public cannot rely upon a Commission-licensed broker not to charge unsuspecting investors 25 per cent more than a market price easily ascertainable by insiders, we should leave such legislation little more than a snare and a delusion.

In several cases, the courts have held that Section 29 of the Securities Exchange Act gives a purchaser of securities the right to rescind his

purchase or to recover damages for fraud in over-the-counter transactions.

International Dealings in Securities

INVESTMENT IN FOREIGN SECURITIES.—Since 1914 international dealings in securities have been hampered by government restrictions and economic disturbances. These restrictions often distorted the forces of supply and demand. Wars, inflation, monetary devaluation, and, above all, foreign exchange restrictions and curbs on financial transactions have surrounded international dealings in securities with many obstacles.

During World War II, ordinary trading in securities was suspended in many countries. A number of belligerent countries sequestered foreign assets held by their nationals, including securities. Great Britain required registration of all foreign securities held by residents, and U. S. securities were largely requisitioned and sold by the Exchequer on American markets to raise dollars in the early days of the war.

The general pattern of international dealings in securities under more normal conditions is discussed below.

The American investor or speculator may purchase a foreign security in two ways: through buying a foreign security on an American exchange or in the over-the-counter market, or through purchasing securities in a foreign market.

Foreign securities available in the American market include a number of dollar bond issues floated here by foreign governments and corporations, shares of several leading foreign corporations traded in United States markets, and some foreign currency bond issues for which a market has been developed. Thus, a number of years ago a City of Tokio 5% bond issue was listed on the New York Stock Exchange consisting of bonds of the par value of £200. The price of this issue was influenced, among other factors, by fluctuations in the value of the pound sterling.

Foreign securities issued abroad, which may be internal issues floated in the home market or foreign issues floated in some other country, are affected by a number of special influences. Those trading in such issues must keep in mind the following factors:

1. The dollar value of the security and the income therefrom may be affected by foreign exchange fluctuations or currency restrictions.
2. In some countries, income on securities is taxed at the source, so that the holder will not receive the full amount of interest or dividends paid on his holdings.
3. Buying and selling costs and transfer taxes in foreign markets may be much higher than prevail here, and, in addition, the cost of shipping the securities and collecting income may be substantial.

INTERNATIONAL SECURITY TRADING.—Interest in foreign securities has been keen in western Europe and the United States for a number of decades past. Accordingly, relations have been established between different security markets to facilitate international dealings.

Organizations which participate in international dealings in securities in this country include:

1. **Large investment banking houses** which have correspondents and in some instances branches in one or more leading centers abroad. These houses have played a leading role in the sale of foreign security issues, and also act for foreign correspondents in handling security transactions in the United States market.
2. **Brokerage houses with foreign connections,** including branch offices and correspondents. Many brokerage houses stand ready to accept orders to buy and sell on foreign exchanges as well as on domestic, maintaining relations with member houses of bourses abroad to execute such orders.
3. **Branches and agencies of foreign banks and security houses,** located in the United States and specializing in doing business in their home markets.
4. **Large commercial banks and trust companies,** comprising leading banking organizations. Through their foreign departments these companies maintain close contacts abroad, and they may make their facilities available to clients in the handling of security transactions.
5. **Arbitragers,** who operate simultaneously in different markets. Their operations will be discussed below.

DISTRIBUTION OF BLOCKS OF FOREIGN ISSUES.—The origination and distribution of dollar bonds in this country closely resembles the issuance and sale of domestic security issues. Investment banking and brokerage houses with connections abroad may seek to distribute foreign currency issues. Thus, an issue of bonds of a French municipality, payable in francs and issued at home, may be available on a 6% basis, while a dollar issue of the same borrower is available on only a 4½% basis. A banker may acquire a block of the French internal issue and offers it on a 5½% basis, which allows him approximately 4 points profit.

In selling foreign stocks, the operation can be facilitated by offering the American buyers certificates similar to the type to which he is accustomed in this market. In most foreign markets, stock certificates are issued to bearer and carry sheets of coupons against which dividends are paid. The denomination of the shares also may not be suitable for the American market, being either too high or too low when stated in dollars. In such cases, arrangements may be made to have the shares deposited with a large trust company here or abroad, and to have issued against these deposited shares **depositary certificates or "American shares"** issued in registered form, which can be freely transferred here on the books of a trustee without disturbing the deposited foreign share certificates. The trustee will attend to the collection and distribution of dividends, etc., for the holders of the certificates issued by it, deducting a small fee for the service. When they meet the special requirements of the New York Stock Exchange, such American shares may be listed thereon.

Offerings of blocks of foreign securities can play an important part in international investment. They take securities out of a market in which they are in excess supply, and so sell at depressed prices, and shift them to markets where the demand justifies a higher quotation. A large part of the European securities sold in the United States in the years preceding 1929 were repurchased by Europeans as individuals or through their banks and thus repatriated then they became available at relatively low prices here during the depression years.

ARBITRAGE IN SECURITIES.—Owing to the fact that discrepancies tend to develop in the prices of securities which are traded in on two or more markets, arbitrage plays an important role in international security dealings.

Arbitrage may be defined as the simultaneous purchase and sale of the same or equivalent things to take advantage of a price discrepancy. By tending to eliminate such discrepancies, the arbitrager performs the economic function of bringing prices into line, thus protecting those who have to buy and sell the things in question. Arbitrage goes on in money and commodities, as well as in securities.

There are three types of arbitrage. **Place arbitrage** seeks to take advantage of price discrepancies in different markets, such as New York and London, or New York and Paris. This is most important in international security arbitrage. **Time arbitrage** seeks to take advantage of price discrepancies between immediate delivery or spot prices and future delivery or future quotations. **Kind arbitrage** seeks to take advantage of discrepancies in price between different things that are or will presently become equivalent to each other, such as convertible securities, split-up shares, and so on.

For effective **international arbitrage in securities,** it is necessary for the arbitrager to be sure that he can obtain execution simultaneously, or nearly so, of his buying and selling orders in different markets, so as to avoid the risk of adverse price fluctuations before completion of the arbitrage. Since he generally seeks a narrow but certain profit, the arbitrager cannot take the risk of being unable to complete the transaction, and so being left with a speculative buying or selling commitment. For this reason, arbitrage is restricted to a large extent to active issues listed on two or more markets. Canadian Pacific ordinary shares, for example, listed in Montreal, New York, London, Paris, and several other markets, has been a favorite of arbitragers. When there was a considerable market in London for "Yankee Rails" and leading American industrial and utility shares, arbitrage was frequent between New York and London in the past.

Arbitrage Calculations.—In seeking to determine whether or not an arbitrage opportunity exists in a given issue listed in different markets, the following factors must be taken into consideration:

1. **Foreign exchange rates.** Since securities must be bought or sold, as the case may be, in the home currency in each market, possible arbitrage profits can be determined only by calculating costs and proceeds in terms of prevailing exchange rates. Thus, the stock of a Belgian public utility may be available in New York at $6.75 per 100-franc share. In Brussels, the stock is quoted at 310, or 310 francs per 100-franc par value share. Leaving out expenses, if the Belgian franc is quoted at 2.29 cents, a share sold in Brussels at 310 can be converted into $7.10, giving a gross profit of 35 cents per share, or $35 per 100 shares.

2. **Commissions and transfer taxes.** The foregoing calculation did not take into account the necessary expenses which will reduce the profit and may wipe out entirely an apparent gain Commissions in each market must be allowed for, as well as transfer taxes on the sale of the issue. Shipment of the security, with marine insurance coverage against loss, is a further expense item. To eliminate risk of adverse foreign exchange fluctuations in Belgian exchange while the shares are

being shipped to Brussels for delivery, it is necessary to sell the francs that will be obtained from the sale of the stock in Brussels for future delivery, which may involve some shading of the price received. Particular care should be taken to see that foreign exchange restrictions do not interfere with the ability of the arbitrager to convert the foreign currency he will receive into dollars.

3. **Foreign stock exchange practice.** While exchanges in the United States and Canada provide for settlement of transactions within a few days at most, European exchanges in normal times conduct considerable trading for **term settlement.** Payment for purchases and deliveries against sales in such trading need not be made until the mid-month or month-end settlement days. Buying and selling for term settlement of foreign stock exchanges must enter into arbitrage calculations, since it often means tying up money in one market until the offsetting transaction in the other can be consummated on the settlement day.

4. **Method of delivery.** While actual delivery of the securities sold is usually expected in the market where the sale is made, this may not prove necessary. By leaving the transaction open, the price discrepancy may disappear and it may be possible to close out the long and short position in each market without actual delivery. Thus, if the quotation of the Belgian utility stock referred to above should drop in Brussels and remain approximately unchanged in New York, the arbitrager can sell in New York and buy back in Belgium, and so realize his profit without conversion of monies or actual shipment of the security. His expenses would thus be sharply reduced.

Completion of an arbitrage transaction may be complicated by rules on each exchange covering good deliveries. Thus, American dollar bonds held abroad frequently have coupons cut off two or more weeks in advance, to give time for shipment to this country. Such bonds are not good deliveries until after the coupon's due date, unless a sum equal to the detached coupons is delivered with the bond.

Arbitrage Between New York and London.—The most common international security arbitraging in the United States is carried on between New York and London. Such activity goes on regardless of the status of the pound sterling, although it is more necessary to protect the transaction from the effects of sterling fluctuations at times when wide price changes in that currency are taking place. As a rule, the arbitrager seeks to eliminate completely the risk of exchange fluctuation, concentrating upon security transactions and leaving operations in foreign exchange to specialists in that field, found mainly in large banks.

New York securities are quoted in London in percentage of par value, but for purposes of convenience shares of a par value of $100 are arbitrarily considered to have a par value of £20. Thus if Union Pacific is quoted at $112 a share in New York, the equivalent London quotation, with the pound sterling at $2.80, will be approximately 200. This latter price is equivalent to 200% of a par value of $100, considered equivalent arbitrarily to £20, and therefore having an actual current value of $56. The British buyer pays in pound at the going rate of exchange for dollars.

The arbitrager, before deciding whether any particular transaction is profitable, will determine the **export and import parity prices.** The New York export parity gives the New York price equivalent to the

London market quotation. The London import parity of the New York market price gives the price at which the stock bought in New York must be sold in London to close out the transaction without loss. Once the parity is determined, it is possible to see quickly opportunities for profit, and the extent of the gain that is obtainable.

SECTION 3

INTEREST RATES

CONTENTS

PAGE

What Determines Interest Rates

The price of money 141
Structure of interest rates..... 141
Level of interest rates..... 142
Comparison of average interest rates, 1949 and 1951 (*f.* 1)..... 143
Government control over interest rates 142
Can government keep down interest rates indefinitely? 144

The Money Market

Scope of markets 145
Money market defined 145
Economic basis of money market.... 145
Organization and operation of New York money market 146
Institutional organization of money market 146

Individual Money Markets

Brokers' loans 147
Lenders and borrowers 148
Statistics on brokers' loans..... 149
Acceptance market 149
Federal Reserve banks and the acceptance market 150
Commercial paper market 150
Federal funds market 150
Short-term government securities.... 151

Interpretation of Banking Statistics

1. Federal Reserve Statement

Statement of condition of the twelve Federal Reserve banks combined (*f.* 2) 152
Assets of Federal Reserve banks 153
Gold certificates on hand and due from the U. S. Treasury..... 153
Redemption fund (Federal Reserve notes) 153
Total gold certificate reserves..... 153
Other cash 153
Discounts and advances..... 153
Industrial loans 153
Acceptances purchased 153
U. S. government securities..... 153
Total U. S. government securities 153
Total loans and securities..... 153

PAGE

Assets of Federal Reserve banks—*Cont'd*
Due from foreign banks..... 153
Federal Reserve notes of other Federal Reserve banks 154
Uncollected items 154
Bank premises 154
All other assets 154
Liabilities of Federal Reserve banks 154
Federal Reserve notes in actual circulation 154
Deposits: member banks' reserve account 154
Deposits: U. S. Treasurer—general account 154
Deposits: foreign banks 154
Other deposits 154
Total deposits 155
Deferred availability items..... 155
Capital accounts 155
Capital paid-in 155
Surplus (Section 7)..... 155
All other liabilities 155
Ratio of gold certificate reserves to deposit and Federal Reserve note liabilities combined..... 155
Federal Reserve credit 155
Changes in member bank reserve balances and related items (*f.* 3) 156
Excess reserves 156
Federal Reserve control of credit... 157
Federal Reserve wartime credit policy 158

2. Statement of Reporting Member Banks

Principal assets and liabilities of member banks (*f.* 4) 159
The turnover of deposits..... 160
Loanable funds 161

Relation of the New York Money Market to the Interior

Position of New York..... 161
Due to and due from banks..... 162
Causes of movement of funds—security transactions 163
Seasonal influences 163
Regional differentials in interest rate 163

PAGE

Treasury Financing and the Money Market

Effect of Treasury operations on money market 163
Wartime changes 164

Other Influences on the Money Market

Effect of business cycle..... 165
Prices and bank credit..... 165

PAGE

Relation of New York to Foreign Money Centers

International position of New York money market 166
The London money market..... 167
Open-market operations 167
Treasury deposit receipts..... 168
Bank of England weekly statement.. 169
Bank of England weekly statement (*f.* 5) 169
Issue department 170
Banking department 170
The Paris money market..... 171

SECTION 3

INTEREST RATES

What Determines Interest Rates

THE PRICE OF MONEY.—Interest rates represent the price charged borrowers by lenders for the use of money. Like any price, the interest rate is determined usually by supply and demand. When the supply of funds exceeds demands for them, the interest rate tends to decline. Conversely, when the demand for money exceeds the supply, the interest rate tends to rise, as those who seek to borrow bid against each other for the limited funds available.

Structure of Interest Rates.—Interest rates are of many kinds. The notion of a single uniform rate of interest is purely theoretical. Actually, there is a whole structure of interest rates for loans of different types and of varying maturities.

There is not a single supply of money, but there is a separate supply of money to be loaned to different types of borrowers and for varying periods of time. At one and the same time, there may be a great surplus of funds available for the purchase of short-term government obligations and other gilt-edge securities, and a shortage of money for the purchase of long-term obligations with a considerable amount of risk. Conversely, when speculative enthusiasm is rampant, there may be a surplus of funds available for the purchase of speculative obligations giving a considerable yield, while fewer investors will want short-term issues with low yields. Therefore, conflicting movements occur at times within the interest rate structure, while the average level of rates may be little changed.

Some writers say that an interest rate includes a payment for the hire of funds, called the **pure interest rate,** and a **premium for risk.** It would be more correct to say that the risk factor is one element which brings about differences between specific rates in the interest structure. For example, long-term obligations since 1930 have carried a higher interest rate than short-term securities of equivalent quality, because of the increased risk attendant upon the delayed maturity and the greater possibility of price depreciation if the level of interest rates should rise. However, at times when the trend of interest rates is clearly downward, investors may prefer long-term obligations and avoid short-term issues, to assure themselves a higher yield on their money over a long period of time. On such occasions, short-term rates have risen above those on long-term obligations.

A number of special factors affect the supply of and the demand for loan funds of particular types, and so influence the rate of interest. For

example, laws, regulations, and customs governing the investment of bank, insurance company, and other institutional funds cause these large-scale lenders to favor certain types of loans. As a result, the supply of money for such loans is artificially increased, and interest rates payable on them are reduced.

Preference for short-term obligations on the part of commercial banks that require a high degree of liquidity has depressed yields on government securities with nearby maturities far below the average level of interest rates. Other special factors affecting particular interest rates are tax exemption of interest paid on state and municipal obligations, and Federal Reserve market support that may be accorded particular government security issues to aid Treasury financing.

LEVEL OF INTEREST RATES.—While diverse changes may occur in individual interest rates, usually the whole structure of interest rates rises or falls fairly uniformly. Therefore, people speak of a "level of interest rates," referring to the average of interest rates on long- and short-term obligations, and on high-grade obligations of different character.

The extent to which particular interest rates move in unison can be gauged readily by a comparison of different money rates over a ten-year period. Average rates in 1949 and 1951 for different types of loans are compared in Fig. 1.

GOVERNMENT CONTROL OVER INTEREST RATES.—Until recent years, interest rates were fixed, like other prices, through the interaction of supply and demand in the money and capital markets. Central banks in a number of countries exerted some control over short-term rates, but usually central bank policy was designed more to moderate extreme fluctuations in interest rates than to prevent major upward and downward movements in response to changes in the demand for and the supply of funds.

During the depression of the 30's, however, one country after another adopted a policy of drastic control over the level of interest rates as a basic part of over-all economic planning. In Great Britain and the United States, for example, chronic low interest rates became a basic objective of Treasury and central bank policy. As governments borrowed huge sums at these low rates, modification or abandonment of the low interest rate policy encountered Treasury resistance because it would mean a major increase in the cost of servicing the national debt and would produce depreciation in the market quotations of securities held by financial institutions and investors who had acquired huge amounts of government securities on a low-yield basis.

Government and Federal Reserve control over interest rates, it should be clearly understood, is effected through changes in the supply of or in the demand for loan funds of particular types. For example, the Federal Reserve System can depress short-term interest rates, and to some extent long-term rates as well, by taking steps which provide member banks with additional excess reserves. Since banks earn nothing on excess balances at the Federal Reserve banks, they are under some pressure to invest these surplus balances, at least in gilt-edge short-term obligations such as Treasury bills and bankers' acceptances. The Fed-

	Open-Market Money Rates in New York City			Commercial Loan Rates		U.S. Government Security Yields			
	Prime Commercial Paper	Prime Bankers' Acceptances	Call Loans	All Loans	Loans of $200,000 and Over	3-Month Bills	9- to 12-Month Issues	3- to 5-Year Issues	Taxable Bonds 15 Years and Over
1949 average	1.48	1.12	1.63	2.7	2.4	1.102	1.14	1.43	2.31
1951 average	2.17	1.60	2.17	3.1	2.9	1.552	1.73	1.93	2.57

(Per cent per annum)

	Bond Yields								
	Municipal	Corporates (Moody's)							
		Total	By Rating				By Groups		
			Aaa	Aa	A	Baa	Industrial	Railroad	Public Utility
1949 average	2.21	2.96	2.66	2.75	3.00	3.42	2.74	3.24	2.90
1951 average	2.00	3.08	2.86	2.91	3.13	3.41	2.89	3.26	3.09

(Per cent per annum)

Fig. 1. Comparison of Average Interest Rates, 1949 and 1951

eral Reserve System thereby depresses interest rates by increasing the supply of loanable funds in the hands of commercial banks.

An even more direct type of intervention that increases the supply of loanable funds was the wartime Federal Reserve policy of buying all Treasury bills offered at a discount of ⅜ of 1% to maturity. Whenever member banks found their reserves inadequate for satisfying the Treasury's demand for new money, they could automatically increase their reserves to the extent required by selling bills to the Federal Reserve banks. When the supply of funds thus becomes virtually unlimited at a fixed interest rate, the interest rate is pegged on the upside. It can then move only one way—downward.

An example of how government intervention can affect the demand for funds is provided by Treasury financing policy. When the Treasury decides to finance chiefly by the sale of short-term securities, it reduces the supply of long-term obligations and causes them to rise in price. Conversely, should the Treasury wish to see long-term interest rates higher, a greater proportion of new financing will take the form of long-term offerings, which will depress quotations of such issues and so increase yields on long-term high-grade bonds generally.

CAN GOVERNMENT KEEP DOWN INTEREST RATES INDEFINITELY?—The money market machinery has been so greatly improved during recent years that the government and Federal Reserve authorities have acquired a far greater degree of control over the level and the movement of interest rates than was ever believed possible in the past. The National City Bank of New York, in its Monthly Bank Letter, has analyzed the effect of permanent low interest rates through government action as follows:

> Everywhere governments are interested in keeping down the interest cost of their heavy debts accumulated during the war, and in maintaining the market prices of their securities now outstanding with the general public, banks, and other institutional investors.
>
> In estimating the ability of governments to achieve these objectives, the effectiveness of "money market management," exercised through the central banks, must not be underrated. There is no doubt that the monetary authorities can maintain a high degree of control over interest rates, even in the face of strong opposing forces, if they are willing to pay the price. That price is an inflation of bank credit, brought about by use of the banking system (including the central bank) as the instrumentality for supporting the bond market and keeping up the supply of loanable funds.
>
> To pay this price in war, when large scale expansion of bank credit is unavoidable and when prices, wages, and other economic conditions are under close controls, is one thing. To pay it in ordinary times of peace is quite another matter. There will be periods of expanding credit and activity when interest rates are prone to rise which will put these policies to the test. The question will be whether it is in the national interest to hold rates by an expansion of credit or whether it is better to let rates rise instead.

The Treasury's desire for low interest rates to facilitate its financing, and the central bank's desire to allow interest rates to rise at a time when inflation threatens, produced an open controversy between the Treasury and the Federal Reserve in 1950 and 1951. Under a "full accord" reached between the two agencies in March, 1951, the Federal

Reserve banks finally ended their wartime policy of pegging government security prices at or above par, thus indicating that the "price" of keeping interest rates at an artificially low level solely for the Treasury's convenience was considered too high.

The Money Market

SCOPE OF MARKETS.—Markets exist for money, as for commodities. The term "money market" is often, but not always, used to define the market for short-term loanable funds. The market for long-term funds is frequently designated as the **capital market**, although this term usually covers the market for corporate stocks as well.

MONEY MARKET DEFINED.—A money market is a center where the **demand for and supply of short-term funds** meet. A money market such as the New York market is a clearing center for a large number of financial transactions, both national and international—a place where the loanable funds of the nation and of other nations are held and where short-term loans can be quickly obtained. It is in the money market that short-term funds are borrowed and lent, and it is there that a large part of the commercial and financial transactions of the country are settled.

The money market normally is concerned only with the borrowing and lending of short-term funds, but it is closely related to a number of other markets which rely on it for financial accommodation. The New York money market, for example, is closely related to the following markets: (1) the capital market for new issues of stocks and bonds; (2) the stock and bond markets, or secondary capital market, which comprise the stock exchanges, brokerage houses, and all the agencies accessory to the securities markets; (3) the foreign exchange market, which embraces international financial transactions between the United States and the rest of the world; (4) the commodity markets, such as the cotton, grains, and sugar exchanges; (5) the insurance market; (6) the shipping market; (7) the bullion market.

ECONOMIC BASIS OF MONEY MARKET.—All these individual markets together provide the economic basis of the money market. Without them there would be little need for a large and well-organized market for short-term funds. Some of them are indispensable, while others are not an absolutely necessary part of a monetary center. Thus, the stock and bond markets and the foreign exchange market are absolutely indispensable to any money market and no money market is complete without them. The commodity, insurance, and shipping markets of London and New York are well developed, but these are not of such great importance in Paris, Berlin, and Amsterdam.

The importance of these related markets is apparent if one considers that the function of the money market is not only the accumulation, but also the placement, of short-term funds. There must be a demand for funds to make a money market possible. The strength of the New York money market lies in the fact that in New York are large and well-organized markets for stocks, bonds, commodities, etc., which provide a

continuous demand for short-term funds to finance their operations. Furthermore, from the viewpoint of the lender, these markets provide excellent opportunities for the safe employment of liquid funds.

Just as the securities markets cannot function without a money market, so a money market cannot exist without the securities markets; for the money market requires channels through which funds may be invested, while the securities markets require sources from which to borrow short-term funds. Similarly, the commodity markets give rise to a large volume of loans and bankers' acceptances which serve to finance the movement and sale of commodities and at the same time provide a safe and liquid medium for short-term investment. International trade requires credit, and thus gives rise to media for the investment of short-term funds. Thus, the greater the number of markets included in the monetary center, the greater its absorptive power for credit will be.

ORGANIZATION AND OPERATION OF NEW YORK MONEY MARKET.—Although money markets of greater or less magnitude exist in all of the principal cities of this country, the New York money market is by far the most important. It is this market which must be most closely studied in judging the money and credit situation of the country.

Short-term funds may be invested in New York through either of two channels: (1) direct loans, usually collateraled by securities, or (2) purchase of short-term credit instruments. The most important loan market is the market for call loans. The open market for credit instruments has as its principal subdivisions: (1) short-term government securities including Treasury bills and certificates, (2) the commercial paper market, and (3) the bankers' acceptance market. In recent years, the short-term government security market has by far and away overshadowed in importance all other markets combined.

Usually, the market for credit instruments is considered the most important division of the money market. This is due to the fact that the London money market, for decades the world's premier financial market, was long concerned chiefly with dealings in bankers' acceptances and is organized primarily for such operations. In New York, however, direct loans until recent years played the most important role as a result of the extensive use of loans on securities, principally call loans, for financing the stock market. At the peak of the speculative boom in 1929, the volume of funds loaned to members of the New York Stock Exchange alone amounted to $8,549,000,000, while the volume of bankers' acceptances and commercial paper outstanding totaled $1,272,270,000 and $265,000,000, respectively. In the following years, however, the importance of the call loan market greatly declined as the market's deflation caused wholesale repayment of these advances. The regulation of security loans by the Board of Governors of the Federal Reserve System will prevent any considerable expansion of such loans in the future. Latterly, the bulk of short-term credit instruments consists of Treasury bills and certificates of indebtedness.

INSTITUTIONAL ORGANIZATION OF MONEY MARKET.—Those who operate in the money market may be broadly classified into two groups—lenders and borrowers. Lenders are those whose main

function in the market is to lend funds, although they may at times appear as borrowers also. The **principal lenders** in the New York money market are:

1. The Federal Reserve banks, which are the primary source of credit for member banks.
2. The large commercial banks, which place funds in government obligations, acceptances, and commercial paper as well as in the call money market.
3. Investing institutions, such as trust companies, insurance companies, and savings banks.
4. Money brokers, who act mainly for out-of-town lenders.

The borrowers consist principally of:

1. The United States government, which obtains a large volume of funds through the sale of 3-month Treasury bills and certificates of indebtedness maturing within one year.
2. Brokerage houses and dealers in government securities, which borrow chiefly for the account of their customers or to carry securities purchased pending their resale.
3. Investment banking houses, which utilize the money market for the financing of new security issues during the process of distribution.
4. Individuals who trade in securities.
5. Dealers and traders in commodities on the commodity markets.
6. Importers and exporters, who obtain financial accommodation chiefly through the use of bankers' acceptances.
7. Business concerns, which obtain funds through the sale of their promissory notes.

Individual Money Markets

BROKERS' LOANS.—Although loans on securities are made to various types of borrowers and on varying terms, the great bulk of such loans in the New York money market are call loans to brokers and dealers. However, some security loans are contracted on a time basis, usually for 90 days. Call loans are made on a day-to-day basis and are payable on demand on the day following the day contracted. If not called, they are automatically renewed for another day.

The **volume of brokers' loans** fluctuates widely because of varying conditions in the stock market. One of the major influences on brokers' loans is the degree of speculative activity in the market. When the public is "in the market," as in 1928 and 1929, the volume of such loans expands greatly and, conversely, when speculation is limited, as in the years of 1933–1936, the volume declines to comparatively small proportions. A second factor affecting brokers' loans is the **level of security prices.** When stock prices are high, a larger amount of loans is required to finance purchases.

The **volume of new security issues** is a third factor influencing the amount of security loans outstanding. Investment bankers underwriting new issues of securities normally have recourse to collateral loans to finance their operations during the period when the securities are being distributed If new issues are offered on a large scale, there is a tendency for loans on securities to increase.

In recent years, **regulations** of the **Board of Governors of the Federal Reserve System** have become by far the most important factor determining the volume of brokers' loans. When the Reserve Board raises margin requirements, the volume of brokers' loans is bound to decline. During the war, loans to brokers and dealers to acquire government securities became more important than loans secured by Stock Exchange collateral, which fell to a low level when margin requirements were lifted to 100% under Regulation T and Regulation U of the Board of Governors in 1946.

Lenders and Borrowers.—Chief among the lenders in the brokers' loan market are the large New York City banks, although a considerable amount is loaned by banks in other cities through the agency of their New York correspondents. During the stock market boom of 1927–1929, a large amount of funds was placed in the market by others than banks. Experience showed that these loans by others constituted an unstable and dangerous element, not only in the money market, but in the entire credit structure of the United States. Loans of this character were not subject to control by the Reserve bank authorities. When in 1928 and 1929 the Federal Reserve Board endeavored to check the expansion of credit for speculative purposes, it was successful in preventing further increases in the volume of collateral loans by member banks to brokers and dealers, but its efforts were nullified by the rapid increase in brokers' loans by others than banks. Also, these other lenders proved utterly devoid of a sense of responsibility for the maintenance of an orderly money market. Under the stimulus of extraordinarily high interest rates, loans placed by the New York reporting banks alone "for account of others" reached a peak of $3,941,000,000 on October 9, 1929. As the stock market collapsed and security prices declined precipitously, the other lenders hastened to call their loans, and in the course of the next four weeks loans placed "for account of others" by the New York reporting member banks alone declined by $1,542,000,000.

In the latter part of 1931, the New York Clearing House Association passed a rule prohibiting its members from making collateral loans "for account of others than banks." The Banking Act of 1933 prohibits all member banks, in making loans on securities to brokers and dealers, from acting as agents for others than banking institutions. Finally, the Securities Exchange Act of 1934 provides that brokers doing business on a national securities exchange may borrow on registered securities only from member banks and nonmember banks which have filed with the Board of Governors of the Federal Reserve System an agreement to comply with all the provisions of the Act, except as otherwise permitted by the Board.

The brokers and dealers in securities, who constitute the demand element in the market, borrow for two purposes. First, they borrow to finance the margin accounts of their customers. Speculators in the stock market often desire to purchase a larger amount of securities than they can pay for with their own funds. They are able to do this by borrowing a part of the purchase price from brokers and pledging as collateral the securities bought. However, brokerage houses do not usually have sufficient capital to enable them to advance their own funds to their customers for this purpose. Consequently these houses borrow from banks, using the customers' securities as collateral.

Secondly, dealers in securities and brokerage houses which engage in the secondary distribution of securities borrow from banks to finance their securities inventory pending distribution to investors.

Statistics on Brokers' Loans.—Data are computed and published periodically on amounts of security loans outstanding to brokers and dealers. None of the statistical reports includes all loans of this character. The most comprehensive report on security loans is that in the **Member Bank Call Report,** issued by the Board of Governors for each of the member bank call dates, of which there are three or four a year. For current use more frequent statistics are desirable. The New York Stock Exchange publishes monthly statistics of member firm borrowings on United States government obligations and on other collateral. The third and most frequent report on brokers' loans is the weekly statement of reporting member banks in 101 leading cities. Although this statement includes a smaller number of banks than the reports of the Federal Deposit Insurance Corporation and the member bank call reports, it contains the loans of the largest banks of the country, and indicates weekly changes in the volume of such loans. The classification of loans in this statement is the same as that of the member bank call report shown in Fig. 4 below.

ACCEPTANCE MARKET.—The market for bankers' acceptances in the United States is a post-World War I development. Prior to the passage of the Federal Reserve Act in 1913, national banks were prohibited from creating acceptances. The law establishing the Federal Reserve System permits member banks to create acceptances up to 100% of their combined capital and surplus and, with the permission of the Federal Reserve Board, up to 150%. The provision for an additional 50% applies only to acceptances drawn to create **dollar exchange.** Bankers' acceptances, provided they meet certain requirements, are eligible for discount at the Federal Reserve banks.

The following table shows changes in the volume of acceptances outstanding since the end of 1930.

BANKERS' ACCEPTANCES OUTSTANDING

End of	Amount
1930	$1,470,000,000
1935	397,000,000
1940	209,000,000
1945	154,000,000
1950	394,000,000

A banker's acceptance, or banker's bill, is a draft drawn on a bank by an individual or firm ordering the bank to pay to the order of a third person a specified sum of money, either on demand or at some future date, and accepted by the bank. The maturity of acceptances is usually from 30 to 180 days. The bank expects the drawer of the draft to provide it with funds to pay the acceptance when due and usually requires that collateral be pledged as security. An acceptance, in effect, substitutes the credit of the bank for that of the drawer. The amount of acceptances outstanding at end of December, 1951, distributed according to the classification used by the American Acceptance Council, was:

CLASSIFICATION OF BANKERS' ACCEPTANCES OUTSTANDING
End of December, 1951

Imports	$235,000,000
Exports	133,000,000
Dollar exchange	23,000,000
Based on goods stored in, or shipped between, United States and foreign countries	99,000,000
Total	$490,000,000

Federal Reserve Banks and the Acceptance Market.—The acceptance market was long under the domination of the Federal Reserve banks, which were the most important buyers of acceptances, both for their own account and for the account of foreign correspondents. The Reserve banks publish a rate at which they are ready to buy bills offered, and this rate formerly governed the open market rate. But at times when the banks have a large volume of funds for short-term investment, market rates fall below the Reserve banks' buying rates. In recent years the Federal Reserve banks have not purchased bills in the open market, as the banks prefer to hold such bills for investment of their excess reserves.

COMMERCIAL PAPER MARKET.—Commercial paper consists of promissory notes of large business concerns of high credit standing, usually maturing in 30, 60, or 90 days, which are bought and sold in the open market. Large companies often prefer this method of raising temporary working capital to direct loans from banks. This type of credit instrument is considered a desirable medium of investment of short-term funds by banks and other financial institutions. The commercial paper market has greatly declined in importance, due primarily to changes in business methods and practices such as the passing of the wholesaler and jobber; the growth of chain stores and instalment selling; new methods of merchandising; and corporate financing by the sale of bonds and stocks.

The decline in the volume of commercial paper outstanding is shown in the following table:

COMMERCIAL PAPER OUTSTANDING

End of	
1930	$357,000,000
1935	172,000,000
1940	218,000,000
1945	159,000,000
1950	333,000,000

FEDERAL FUNDS MARKET.—This market provides a method whereby member banks may adjust their **reserve balances** with the Federal Reserve banks without borrowing from the latter. When a member bank's reserves fall below the legal requirement, they must be replenished. The most obvious method of increasing reserve balances is by direct borrowing from the Reserve banks, but member banks are often reluctant to do this. It is often possible to obtain temporary additional reserve balances at lower cost, furthermore, through the federal market.

Federal funds are sight claims on the Reserve banks or the United States Treasury. They consist of demand deposits with the Reserve

banks, cashiers' checks of the Reserve banks, and checks of the United States Treasury. The Reserve banks give immediate deposit credit for such claims. Thus, a bank which is deficient in reserves may temporarily increase its balances by exchanging its own cashier's check for a check on a Federal Reserve bank drawn by another member bank possessing excess reserves. When the check on the Federal Reserve bank (federal funds) is deposited with it, the account of the depositing bank is credited immediately while the cashier's check must go through the clearing house and is not debited to the account of the drawer until the next day. Thus, the bank buying the federal funds obtains an increase in its reserve balances for one day. Interest for one day is added to the cashier's check given in payment for federal funds.

In recent years, a **federal funds market** has been developed in New York by a few money brokers who act as intermediaries in arranging the exchange of checks, charging at times a small commission for their services. The **market rate** on federal funds is generally lower than the discount rate and is higher only in periods when the Federal Reserve banks are endeavoring to restrict the volume of reserve credit outstanding. A rise in the rate for federal funds is generally an indication of tighter money and credit conditions.

SHORT-TERM GOVERNMENT SECURITIES.—Treasury bills and certificates of indebtedness, like bankers' acceptances, constitute excellent media of investment for short-term funds. The volume of such issues available expanded enormously during World War II, dwarfing other short-term investments available by comparison. **Treasury bills** bear no interest and are traded in on a discount basis, while **Treasury certificates** are interest-bearing and are quoted on a price basis plus accrued interest like long-term bonds. The financial houses which deal in acceptances deal also in government securities and, as in the case of the acceptance market, the Federal Reserve banks are among the most important buyers. The rate on short-term Treasury securities is usually lower than the acceptance rate because of the high credit standing of the government. Financial institutions nowadays readjust their cash position primarily through the purchase and sales of these securities.

Interpretation of Banking Statistics

Analysis and forecasting of money market and credit conditions are based primarily upon the interpretation of currently published banking statistics. The **most significant data** are found in the following statements:

1. Consolidated statement of the Federal Reserve banks, which appears in the daily papers on Friday. This statement offers much the most important clues to prospective changes in interest rates.
2. Statement of all reporting member banks, published on Wednesday.
3. Statistics of bank deposit turnover.

1. Federal Reserve Statement

The most important of these statements is the consolidated statement of the Federal Reserve banks (Fig. 2), which reveals changes in the amount of Federal Reserve credit outstanding, the amount of Federal

ASSETS	Apr. 9	Apr. 11, '51
Gold certificates	$21,416,254	$19,954,901
Redemption fund for F. R. notes	698,986	619,420
Total gold certificate reserves	$22,115,240	$20,574,321
Other cash	357,004	336,488
Discounts and advances	167,479	92,087
Industrial loans	5,129	4,104
U. S. government securities:		
Bills	.....	1,602,098
Certificates	11,790,306	.....
Notes	5,068,073	14,986,233
Bonds	5,635,823	6,497,824
Total U. S. government securities	$22,494,202	$23,086,155
Total loans and securities	$22,666,810	$23,183,055
Due from foreign banks	28	33
F. R. notes of other banks	143,415	135,054
Uncollected cash items	3,402,033	3,250,138
Bank premises	44,457	40,670
Other assets	149,049	154,900
Total assets	$48,878,036	$47,674,659
LIABILITIES		
Federal Reserve notes	$24,385,499	$23,053,567
Deposits:		
Member bank—reserve accounts	19,652,022	19,533,098
U. S. Treasurer—general account	380,758	411,171
Foreign	562,297	827,711
Other	201,254	361,728
Total deposits	$20,796,331	$21,133,708
Deferred availability cash items	2,675,944	2,538,635
Other liabilities and accrued dividends	15,805	12,043
Total liabilities	$47,873,579	$46,737,953
CAPITAL ACCOUNTS		
Capital paid in	$ 242,341	$ 228,314
Surplus (Section 7)	538,342	510,022
Surplus (Section 13b)	27,543	27,543
Other capital accounts	196,231	170,827
Total liabilities and capital accounts	$48,878,036	$47,674,659
Contingent liability on acceptances purchased for foreign correspondents	8,096	32,792
Industrial loan commitments	6,505	2,628
Ratio of gold certificate reserves to deposit and F. R. note liabilities combined	48.9%	46.6%

Maturity Distribution of Bills and Short-Term Securities

	Discounts & advances April 9	Industrial loans April 9	U. S. secs. incld. guar. sec. April 9
Within 15 days	$123,966	$1,015	.....
16 to 90 days	43,513	660	$ 532,856
91 days to 1 year	.....	2,269	12,877,675
Over 1 yr. to 5 yrs.	.....	1,185	5,441,352
Over 5 yrs. to 10 yrs.	.....	....	1,013,614
Over 10 years	.....	....	2,628,705
Total	$167,479	$5,129	$22,494,202

(In thousands of dollars—000 omitted)

FIG. 2. Statement of Condition of the Twelve Federal Reserve Banks Combined

Reserve notes in circulation, the movement of gold and, above all, the credit policies that are being pursued by the Federal Reserve System.

A full explanation of the details of the Federal Reserve statement follows.

ASSETS OF FEDERAL RESERVE BANKS.—

Gold Certificates on Hand and Due from the U. S. Treasury.—These are certificates given by the United States Treasury for the gold taken over from the Reserve banks when the gold content of the dollar was reduced to 59.06% of its former amount on January 31, 1934, under the provisions of the Gold Reserve Act of 1934.

Redemption Fund (Federal Reserve Notes).—This is the amount of gold deposited with the United States Treasury by the Federal Reserve banks for the redemption of Federal Reserve notes. Each Federal Reserve bank is required by the Federal Reserve Act to provide for the redemption of its Federal Reserve notes in Washington by maintaining with the United States Treasurer a deposit of gold certificates of not less than 5% of the amount of notes issued to it and not covered by gold certificates pledged with the Federal Reserve agent.

Total Gold Certificate Reserves.—This is the sum of the foregoing items. The Federal Reserve Act requires each Federal Reserve bank to maintain a reserve in gold certificates of 25% against Federal Reserve notes in actual circulation and total deposits.

Other Cash.—This includes United States notes (greenbacks), silver certificates, and standard silver dollars.

Discounts and Advances.—This comprises bills discounted for member banks and advances on their promissory notes secured by U. S. government obligations or other acceptable assets.

Industrial Loans.—These are advances made directly by the Federal Reserve banks to industrial borrowers.

Acceptances Purchased.—These are bankers' acceptances bought from dealers.

U. S. Government Securities.—The items listed under U. S. government securities represent the amount of Treasury bills, certificates of indebtedness, Treasury notes and U. S. government bonds that are owned by the Federal Reserve banks.

Total U. S. Government Securities.—This is the total of all U. S. government obligations owned.

Total Loans and Securities.—This is the total of the four preceding items and comprises all of the discounts, acceptances, and securities acquired by the Reserve banks under the provisions of Sections 13 and 14 of the Federal Reserve Act, except paper rediscounted for banks since closed, which is included in miscellaneous resources.

Due from Foreign Banks.—Deposit balances which are held with foreign central banks by the Federal Reserve Bank of New York and participated in by the other Federal Reserve banks are shown under this heading.

Federal Reserve Notes of Other Federal Reserve Banks.—Federal Reserve notes of other Federal Reserve banks, which under the provisions of the Federal Reserve Act may not be paid out except under penalty of a tax of 10%, are shown in this total. These notes are forwarded to the bank of issue or the United States Treasurer for redemption, whereupon payment for them is received from the bank of issue through the Gold Settlement Fund.

Uncollected Items.—These items are checks, drafts, and other so-called "cash items" deposited with the Federal Reserve banks by commercial banks for collection.

Bank Premises.—The book value of bank buildings and building sites owned by the Federal Reserve banks for banking-house purposes is entered here.

All Other Assets.—Miscellaneous assets such as reimbursable expenses, deferred charges, claims account, closed or suspended banks, interest accrued, overdrafts, premium on securities, etc., are included under this heading.

LIABILITIES OF FEDERAL RESERVE BANKS.—

Federal Reserve Notes in Actual Circulation.—This item shows the amount of Federal Reserve notes paid out by the Federal Reserve banks, that is, the amount of Federal Reserve notes received by the Federal Reserve banks from the Federal Reserve agents, less the amount of its own Federal Reserve notes held by each Federal Reserve bank, also less any mutilated notes that had been forwarded to Washington for the purpose of redemption.

The Federal Reserve banks are required by law to maintain a reserve of 25% in gold certificates against Federal Reserve notes.

Deposits: Member Banks' Reserve Account.—This total represents the entire lawful reserve carried by national banks against their deposit liabilities and the lawful reserve which state member banks carry with the Federal Reserve banks. These deposits, while constituting the required reserves of member banks, may be drawn upon to meet current requirements, and in fact are actively used by member banks in connection with their check clearing operations, transfers of funds, currency withdrawals, etc.

Deposits: U. S. Treasurer—General Account.—Amounts held on deposit with the Federal Reserve banks by the United States Treasury are entered under this caption. The Federal Reserve banks act as fiscal agents for the Treasury and as such receive government funds on deposit and pay government checks, coupons, and maturing securities.

Deposits: Foreign Banks.—Deposits of various foreign central banks with the Federal Reserve Bank of New York are recorded under this heading. Each of the other Federal Reserve banks is allotted a participation in these foreign bank deposits by the Federal Reserve Bank of New York.

Other Deposits.—Clearing balances of clearing nonmember banks, Federal Reserve bank officers' checks outstanding, Federal Reserve exchange and transfer drafts (drafts drawn by member banks on Federal

Reserve banks), funds collected for the account of other Federal Reserve banks which cannot be transferred to them on the date collected because of their being closed on account of a local holiday, and miscellaneous deposits constitute this amount. Nonmember banks which maintain clearing accounts with the Federal Reserve banks are entitled to make the same use of the check clearing and collecting facilities of the Federal Reserve banks as are member banks.

Total Deposits.—This is the total of the four preceding items and represents the aggregate deposit liability of the Federal Reserve banks against which they are required to maintain a gold certificate reserve of 25%.

Deferred Availability Items.—This includes checks, drafts, and other cash items, in process of collection, for which the Federal Reserve banks have given credit to member banks, clearing nonmember banks, and the United States Treasury in a deferred availability account. Final deposit credit subject to actual collection is given for these items in accordance with the Federal Reserve banks' published time schedule. This time schedule is based upon the time that is normally required for the collection of the items.

CAPITAL ACCOUNTS.—

Capital Paid-In.—Each member bank is required by the Federal Reserve Act to subscribe to the capital stock of the Federal Reserve bank in a sum equal to 6% of its own paid-in capital and surplus. One-half of the subscribed capital of the Federal Reserve banks has been paid in and the balance is subject to call if and when deemed necessary by the Federal Reserve Board.

Surplus (Section 7).—Under the Banking Act of 1933, the net earnings of Federal Reserve banks, after payment of a 6% dividend on their paid-in capital, are to be "paid into the surplus fund" of these banks. **Surplus (section 13b)** represents the net amount received by the Federal Reserve banks from the Treasury (under section 13b of the Federal Reserve Act) for the purpose of making loans to industrial and commercial enterprises. Payments made by the Treasury into Surplus Section 13b were secured by a pledge of the Federal Deposit Insurance Corporation stock held by the Federal Reserve banks at the time.

All Other Liabilities.—Miscellaneous liabilities such as accrued taxes and dividends unpaid, reserves for self-insurance and for losses on account of failed banks, unearned discount, and net earnings are shown under this caption.

Ratio of Gold Certificate Reserves to Deposit and Federal Reserve Note Liabilities Combined.—This is the ratio of gold certificates held by the Federal Reserve banks to the sum of Federal Reserve notes in circulation and total deposits.

FEDERAL RESERVE CREDIT.—Analysis of changes in the volume of Reserve bank credit outstanding, and the causes for such changes, is greatly facilitated by a brief table, issued each week along with the regular Reserve bank statement, showing the amount of credit extended by the Reserve banks to the financial system, together with certain

other items responsible for increases or decreases in the amount of reserve credit outstanding. This table, as of April 9, 1952, is shown in Fig. 3.

		Increase or Decrease Since	
	Apr. 9, 1952	Apr. 2, 1952	Apr. 11, 1951
Reserve Bank credit:			
U. S. government securities	22,494	— 20	— 592
Loans, discounts and advances	173	+ 38	+ 77
* Float	726	— 35	+ 14
Total	23,393	— 16	— 502
Gold stock	23,293	+ 2	+1,487
Treasury currency outstanding	4,736	...	+ 96
Money in circulation	28,526	+ 81	+1,360
Treasury cash holdings	1,273	— 8	— 14
Treasury deposits with F. R. banks	381	+ 86	— 30
Foreign deposits with F. R. banks	562	— 3	— 266
Other deposits with F. R. banks	202	— 10	— 161
Other F. R. accounts (net)	827	...	+ 74
Member bank reserves	19,652	—160	+ 119
Req. reserves (estim.)	19,116	— 88	+ 570
Excess reserves (estim.)	536	— 72	— 451
Daily average excess reserves (estim.)	609	—105	— 323

* Excess of uncollected cash items over deferred availability cash items.

(Millions of dollars)

Fig. 3. Changes in Member Bank Reserve Balances and Related Items

It is seen from the above table that in the week ended April 9, 1952, member bank reserve balances decreased by $160,000,000. This was caused primarily by a rise in money in circulation of $81,000,000, an increase in Treasury deposits with the Federal Reserve banks of $86,000,000, and a decline of $20,000,000 in the Reserve banks' holdings of government securities. Another factor tending to reduce reserves was a $35,000,000 drop in the Float, reflecting an excess of debits over credits to member bank deposit accounts resulting from check collections for them. Offsetting factors tending to increase reserves were a rise of $38,000,000 in discounts and advances by Reserve banks and a $10,000,000 decline in nonmember bank deposits. It will be noted that, of the drop in reserves, $88,000,000 represented a decline in required reserves, so that excess reserves fell by only $72,000,000.

EXCESS RESERVES.—Generally speaking, the most effective single clue to interest rate changes, particularly short-term, is the amount of **excess reserves** of member banks of the Federal Reserve System. This is disclosed each Friday in the Federal Reserve bank statement, in connection with a statement on changes in member bank reserve balances and related items.

Excess reserves are deposit balances of member banks with their Federal Reserve banks in connection with the amount of reserves required by law. These excess reserves are surplus funds earning no return that member banks normally would like to invest in suitable short-term commitments. The existence of excess reserves is like a green light to bank managements, encouraging them to expand investments and loans.

Excess reserves were virtually unknown before 1933, as member banks sought before that time to keep fully invested so as not to lose interest earnings. In the middle and later 1930's, excess reserves rose steadily to a peak of more than $7,000,000,000 in 1940, as a result of which interest rates were under great pressure during this period, declining to the lowest level on record. Thereafter, increases in legal reserve requirements for member banks, the halt in the gold inflow, and the great wartime expansion of currency circulation brought down excess reserves to about a billion dollars, and Federal Reserve policy sought to keep them around this level during the war period and the transition which followed.

Experience has shown that it is not the absolute amount of excess reserves, but substantial changes in their volume, which bring about changes in the level of interest rates.

FEDERAL RESERVE CONTROL OF CREDIT.—The Federal Reserve banks can influence the money market in a number of ways: (1) by discounting bills for member banks or making advances to them on their notes secured by government securities; (2) by buying and selling government obligations in the open market; (3) through raising or lowering member banks' reserve requirements. In addition, the Treasury can exert considerable influence over the money market.

The basis of Federal Reserve control over credit is the provision of the Federal Reserve Act requiring member banks to maintain deposits with the Federal Reserve banks as reserves against their deposit liabilities. Reserve requirements against member bank deposits may be fixed by the Board of Governors within the following ranges:

Central Reserve cities	13–26%
Reserve cities	10–20%
Country districts	7–14%
Against time deposits	3– 6%

When the Board of Governors of the Federal Reserve System raises reserve requirements, the volume of member bank reserves does not undergo change, but excess reserves, on balance, are converted into required reserves. Similarly, when the Reserve Board lowers reserve requirements, required reserves are converted into excess reserves. During the war and until June 30, 1946, member banks were relieved from the obligation of maintaining reserves against U. S. government deposits.

In the past, the Board of Governors of the Federal Reserve System and the individual Federal Reserve banks relied principally on two instruments of credit control—the discount rate and open market operations. By raising or lowering the discount rate, Reserve banks made it more or less expensive for member banks to increase their reserve balances through rediscounting or borrowing. Similarly, through buying or selling government securities in the open market and buying accept-

ances or allowing them to run off, the Reserve banks increased or decreased the volume of member bank reserve balances. As a rule, these two instruments of credit control were used together. For example, if the Federal Reserve authorities wished to check the expansion of member bank credit, they might sell government securities and also reduce their portfolio of acceptances by not renewing matured bills. Payment for securities sold or bills matured is made by checks on commercial banks, which results in debits to accounts of the member banks at the Reserve banks, and thus in a reduction of reserve balances. If, as a result of these transactions, member banks are forced to borrow from the Reserve banks, the latter can make borrowing more expensive by raising the rediscount rate.

In addition to these two older instruments of control, the Federal Reserve System has three other measures at its disposal through which it can influence the money market. Most important is the power of the Board of Governors to vary legal reserve requirements of member banks. By raising reserve requirements, the Board automatically reduces surplus balances which member banks have with the Reserve banks, or actually forces member banks to increase borrowings at the Reserve banks. A reduction in reserve requirements has the opposite effect. Two types of qualitative credit control powers are exemplified by the authority to regulate loans on securities by brokers and banks (Regulations T and U) and regulation of instalment credit terms (Regulation W).

Federal Reserve Wartime Credit Policy.—Federal Reserve credit policy following the commencement of hostilities in Europe in 1939 was directed to (a) stabilize the government security market, (b) maintain low interest rates, (c) facilitate the transition from a peacetime to a wartime economy, and (d) combat inflation.

On September 1, 1939, the Board of Governors announced that the Reserve banks would make advances on equal terms to member and nonmember banks on government obligations at full par value. After Pearl Harbor, on December 8, 1941, the Board issued a policy declaration which stated:

> The System is prepared to use its powers to assure that an ample supply of funds is available at all times for financing the war effort and to exert its influence toward maintaining conditions in the United States Government security market that are satisfactory from the standpoint of the Government's requirements.

On April 30, 1942, the Federal Open Market Committee directed the twelve Federal Reserve Banks to purchase all Treasury bills offered them on a ⅜% per annum discount basis. This fixed buying rate prevented the bill rate from rising above that level, and so pegged that interest rate effectively.

2. Statement of Reporting Member Banks

The statement of reporting member banks reflects the position of the member banks reporting weekly to the Federal Reserve Board. These banks represent the greater part of the total banking resources of the country and about two-thirds of the resources of all member banks. The statements as of April 2, 1952 and April 4, 1951, are shown in Fig. 4.

Assets	Apr. 2, 1952	Net Change Since Apr. 4, 1951
Loans and investments—total	$73,111,000,000	+$2,989,000,000
Loans—net	34,795,000,000	+ 1,946,000,000
Loans—gross	35,345,000,000	+ 2,041,000,000
Commercial, industrial and agricultural loans	21,172,000,000	+ 1,976,000,000
Loans to brokers and dealers for purchasing or carrying:		
United States government obligations	206,000,000	— 37,000,000
Other securities	1,072,000,000	— 191,000,000
Other loans for purchasing or carrying:		
United States government obligations	116,000,000	— 28,000,000
Other securities	561,000,000	— 16,000,000
Real estate loans	5,657,000,000	+ 292,000,000
Loans to banks	540,000,000	— 55,000,000
Other loans	6,021,000,000	+ 100,000,000
U. S. government securities—total	31,163,000,000	+ 489,000,000
Treasury bills	3,415,000,000	+ 1,603,000,000
Treasury certificates of indebtedness	3,611,000,000	+ 3,611,000,000
Treasury notes	5,917,000,000	— 2,222,000,000
U. S. bonds (including guaranteed obligations)	18,220,000,000	— 2,503,000,000
Other securities	7,153,000,000	+ 554,000,000
Reserve with Federal Reserve banks	14,475,000,000	+ 241,000,000
Cash in vault	819,000,000	+ 23,000,000
Balances with domestic banks	2,652,000,000	+ 372,000,000
Liabilities		
Demand deposits—adjusted	51,162,000,000	+ 2,120,000,000
Time deposits	16,582,000,000	+ 960,000,000
United States government deposits	3,832,000,000	— 1,250,000,000
Interbank deposits:		
Domestic banks	10,380,000,000	+ 1,356,000,000
Foreign banks	1,232,000,000	— 187,000,000
Borrowings	464,000,000	— 26,000,000
Debits to demand deposit accounts, except interbank and United States government accounts during current week	30,664,000,000	.....

Fig. 4. Principal Assets and Liabilities of Member Banks

Total loans and investments indicate the total amount of credit extended by the reporting banks. An increase reflects expansion of bank credit, while a decrease indicates a contraction of bank credit. Loans constitute a direct extension of bank credit. The purchase of securities for investment likewise involves expansion of bank credit, since the seller of the securities to the bank obtains a deposit credit on the books of the bank, or the buying bank's check is deposited in the seller's bank.

Commercial, industrial, and agricultural loans indicate the volume of bank credit used for the financing of production and distribution. **Loans to brokers and dealers** are divided into two categories: loans to enable brokers and dealers to acquire government securities, and those to facilitate trading in securities already outstanding or newly issued securities. During the war, loans to brokers and dealers for the purpose of enabling them to purchase and carry government securities assumed

major proportions. **Other security loans** are also divided into two groups: loans to individuals and firms for the purpose of enabling them to carry government securities, and loans secured by other security collateral. During the war, large loans were made by banks to insurance companies in particular to enable them to buy newly issued government securities. **Loans on real estate** and **loans to banks** are self-explanatory. The items **Treasury bills, Treasury certificates of indebtedness, Treasury notes, United States bonds,** and other **Obligations fully guaranteed by the United States government** constitute investments in government obligations. As a result of the war, the purchase of government securities by the banks increased very sharply. In fact, they are today the principal earning asset of all banks. Banks have endeavored to diversify their government security holdings as to maturity. The item **other securities** represents investment in all kinds of securities, primarily bonds, other than government obligations. Other items on the asset side are self-explanatory.

On the liability side, deposits are divided into various categories. **Demand deposits** include deposits of individuals, firms, corporations, and political divisions and subdivisions of the government. During the last few years, the volume of demand deposits has increased very sharply, reflecting primarily the purchase of government securities by the commercial banks. **Time deposits** consist mainly of savings accounts of individuals, although certain business deposits are placed in time deposit accounts to secure some interest return. **United States government deposits** played an important role during the war. They showed a sharp increase during and shortly after the war loan drives, but were decreased later when these deposits were used to redeem maturing Treasury obligations in 1946.

Interbank deposits are divided into two groups: domestic banks and foreign banks. Banks maintain substantial balances with correspondent banks, particularly in banks located in financial centers such as New York and Chicago. **Foreign bank deposits** represent deposits of foreign banks, commercial as well as central, with banking institutions, in the United States. As is to be expected, most of these balances of foreign banks are kept in New York City. Borrowings represent rediscounts as well as borrowings by the member banks from the Federal Reserve banks and loans made by one commercial bank to another.

THE TURNOVER OF DEPOSITS.—The volume of deposits alone does not give a full picture of money supply conditions. It is necessary also to study the turnover or velocity of deposits. The Federal Reserve Bulletin publishes regularly a table indicating bank debits and deposit turnover. Debits reflect checks drawn by individuals or corporations which are debited to their account. The turnover of deposits measures the actual use of deposits. The table below shows debits to demand deposits and the annual rate of turnover of demand deposits. Figures are given for New York City as well as for 100 other leading cities. The figures for New York City are greatly influenced by financial transactions. On the other hand, figures for the other 100 leading cities reflect more accurately business turnover. Both in New York City and elsewhere, the huge increase in the volume of deposits has produced a slower turnover.

Bank Debits and Deposit Turnover

Year	Debits to Demand Deposit Account Except Interbank and Government (000,000 omitted)		Annual Rate of Turnover of Demand Deposits Except Interbank and Government	
	New York City	100 Other Leading Cities	New York City	100 Other Leading Cities
1940	$167,373	$217,744	17.1	18.6
1941	193,729	270,439	17.3	19.4
1942—old series	200,337	308,913	18.0	18.4
1942—new series				
1943	258,398	369,396	20.5	17.4
1944	298,902	403,400	22.4	17.3
1945	351,602	412,800	24.2	16.1
1946	407,946	522,944	25.2	16.5
1947	400,468	598,445	24.1	18.0
1948	445,221	660,155	27.2	19.2
1949	447,150	639.772	28.2	18.7
1950	508.166	731,511	31.4	20.3
1951	540,990	837,491	32.2	21.7

LOANABLE FUNDS.—Deposits of member banks in the Federal Reserve banks constitute the basis for the nation's credit system. The larger these reserves, the more investments and loans commercial banks can make. Investments and loans by commercial banks, in turn, provide funds to corporations and individuals. An increase in excess reserves of member banks will thus largely determine the supply of loanable funds and the trend of the interest rates.

The nation's money supply consists of bank demand deposits and currency. There has been a more than fourfold increase in the stock of money in the United States since 1929. Monthly statistics on the money supply are compiled by the Board of Governors of the Federal Reserve System, and may be found in the Federal Reserve Bulletin. The volume of demand deposits and currency at the end of 1929, 1939, 1945, and 1950 compared as follows:

	Total Demand Deposits Adjusted and Currency Outside Banks	Demand Deposits Adjusted	Currency Outside Banks
1929	$ 26,366	$22,809	$ 3,557
1939	36,194	29.793	6,401
1945	102,341	75,851	26,490
1950	117,670	92,272	25,398

(Millions of dollars)

Relation of the New York Money Market to the Interior

POSITION OF NEW YORK.—Although the financial importance of Chicago, St. Louis, San Francisco, and other large cities has increased in recent years, the outstanding position of New York in both national

and international finance necessitates close financial relationships between New York and interior banks. Since national banks are prohibited from engaging in branch banking outside of the city, town, or state in which they are located (Banking Act of 1933), and since state banks are not permitted in most states to have branches, the relationship between New York and interior banks is necessarily by correspondence. Many banks establish connections with New York institutions primarily for the purpose of facilitating their clearing transactions. Others enter into this relationship in order to have a larger institution from which they can obtain loans whenever funds are needed in the interior, and still others, particularly smaller banks not members of the Federal Reserve System, maintain their cash reserves with New York banks. Large city banks provide valuable investment advice, and trust, tax, operating and other services to correspondents. They perform safekeeping functions for out-of-town banks, frequently review investment portfolios, and execute accurate transactions for their correspondents. Under ordinary circumstances, therefore, the New York banks have at their disposal the surplus funds of a large number of interior banks. Businesses all over the country maintain large deposits in New York banks. Deposits and withdrawals by business depositors are the major factor in the movement of funds from one area to the other in normal times.

To measure the movement of banking funds from New York to the interior and vice versa, the following figures must be considered:

1. Fluctuation of the items **due to banks** and **due from banks** in the statement of the New York City member banks.
2. **Treasury deposits** in the various Federal Reserve districts.
3. Changes in the amount of **gold certificates** held by the individual Federal Reserve banks.

DUE TO AND DUE FROM BANKS.—Changes in the financial relationships between New York banks and the interior banks are directly reflected in the statement of New York City member banks.

An increase in **due to banks** indicates that New York banks have received additional funds from their correspondents, while an increase in **due from banks** reflects an increase in loans to, or deposits with, correspondent banks and represents a movement of funds to the interior. Decreases in this item have just the opposite meaning, that is, a decrease in "due to banks" indicates a withdrawal of funds from New York and a decrease in "due from banks" indicates a movement from the interior to New York. Ordinarily, one would expect that an increase in "due to banks" would be accompanied by a decrease in "due from banks." However, this is not always the case because, while certain interior banks may increase their deposits with New York institutions, causing an increase in "due to banks," other interior banks may increase their borrowings and thereby lead to an increase in "due from banks."

During the war the operations of the Treasury played a very important part in the movement of funds from New York to the interior and vice versa. As a rule the Treasury took more funds out of New York through taxes and borrowing than it spent in that district. The operations of the Treasury, therefore, transferred funds from New York to sections where war activity was highly concentrated. Member banks in the interior, on the other hand, when finding themselves confronted with a too rapid increase in their own deposits, placed a certain per-

centage with their correspondents in New York and this in turn led to a return flow of funds to New York.

The amount of gold certificates held by individual Federal Reserve banks also indicates at least in part the movement of funds to and from New York.

CAUSES OF MOVEMENT OF FUNDS—SECURITY TRANSACTIONS.—A movement of funds from New York to the interior may be caused by a number of factors. If new securities are issued by New York banking houses and these securities are sold throughout the country, the result is a movement of funds from the interior to New York. Payment of principal, interest, and dividends by corporations leads to a movement of funds between New York and the interior. Similarly, the payment of dividends, principal, or interest by a corporation located in the interior, if this corporation keeps its funds with interior banks, will lead to an inflow of funds from the interior to New York.

SEASONAL INFLUENCES.—Seasonal changes in demand for credit have an important bearing on the financial relationship between New York and the interior. During periods when **crops are planted** and when **crops move to market,** there is a movement of funds from New York to the interior. In the winter months, when the banks in the interior have idle funds, they will invest in short-term government securities, and this may cause funds to flow to New York, where the larger government security dealers are located.

REGIONAL DIFFERENTIALS IN INTEREST RATES.—Relationship of interest rates in various parts of the country also exercises an influence on the shifting of funds between New York and the interior. In more normal times, the rate of interest exercises only a minor influence on the inter-regional movement of bank funds, since interior banks want to keep part of their resources highly liquid and deposits with the large New York banks provide the best means of doing this.

Treasury Financing and the Money Market

EFFECT OF TREASURY OPERATIONS ON MONEY MARKET.—United States Treasury financing operations involve a larger volume of funds than any other type of operations, reaching on quarterly tax days and new financing periods a volume of several billion dollars. Hence, the effects on the money market are necessarily of a determining character. Through redemption of maturing obligations, payments of interest, the call of funds from depository banks, and the collection of income taxes, the commercial and banking activities are vitally affected at a number of points. Notwithstanding these heavy shiftings of funds, there is usually little disturbance in the money market and money rates are practically unaffected. This is true even to a greater extent of the day-to-day Treasury transactions with the Reserve banks. This relative stability is due to the efficient working of the mechanism for the handling of the huge volume of government funds.

Treasury operations on the quarterly tax collection dates, March 15, June 15, September 15, and December 15, which coincide with interest

payment dates on many government obligations, reveal the interrelations between the Treasury, the Reserve banks, and the money market.

The **quarterly financial operations** of the Treasury begin with the disbursement of funds on the 15th day of each quarter for payment of interest on the public debt, redemption of maturing Treasury securities and payment of other obligations. Payment is made by checks drawn on the Reserve banks, which are deposited by recipients with commercial banks and sent by the latter to the Reserve banks for credit to their accounts, thus resulting in an increase in member bank reserve balances. At the same time that these disbursements are made, the Treasury is also receiving checks drawn on commercial banks in payment of taxes and new issues of Treasury securities. As these checks are collected, member banks' balances at the Reserve banks are debited, so that the effect is just the opposite of that described above for disbursements.

If disbursements and collections exactly coincided, they would offset each other and there would be little change in the total of member bank reserve balances. However, this is not usually the case. In practice, collections lag several days behind disbursements, and in order to cover the deficit, the Treasury resorts to **borrowing from the Reserve banks.** This borrowing takes the form of a purchase by the Reserve banks of a **special one-day certificate of indebtedness.** The certificate is renewed each day in decreasing amounts as collections come in.

Wartime Changes.—During the war, when Treasury operations were multiplied many times over, the Treasury found it necessary to rely on the Reserve banks more heavily than under normal conditions. To meet this situation the Second War Powers Act of March 27, 1942 authorized the Federal Reserve banks to purchase directly from the Treasury direct or fully guaranteed obligations. However, the aggregate amount of directly acquired securities held by the Reserve banks at any time must not exceed $5,000,000,000. The Treasury availed itself of this privilege rarely, however, and only on tax payment dates did it borrow heavily directly from the Reserve banks. This borrowing was done in order to keep the money market on an even keel, and to prevent the shifting of funds from influencing money market conditions and the government bond market.

To facilitate absorption of government securities by commercial banks, the Federal Reserve Act was amended during the war to relieve member banks of the obligation of maintaining reserves against government deposits in the so-called "War Loan Account." As a result, during the war loan drives deposits of the Treasury with the member banks increased very sharply while other deposits decreased materially. Since member banks did not have to maintain reserves against these government deposits, required reserves were thus turned into excess reserves. This enabled member banks to repay loans previously obtained from the Federal Reserve banks, or to purchase short-term government securities previously sold to the latter.

After the war loan drives were over, the Treasury began to draw on its deposits with the commercial banks to pay for war materials and other expenditures, thus converting government deposits into private deposits. The member banks were under the obligation to maintain reserve balances against these deposits, with the result that required reserves increased again as excess reserve balances decreased.

To meet this situation some member banks borrowed from the Federal Reserve banks while others liquidated short-term government securities, which were acquired for the most part by the Federal Reserve banks. To encourage member banks to borrow from the Federal Reserve banks, the discount rate on loans to member banks secured by government obligations with a maturity of one year or less was reduced to ½ of 1% during the war, but this "preferential rate" was eliminated in 1946.

Another major factor in the money market during the war was the sharp increase in the volume of currency in circulation. Currency outstanding increased from approximately $7,500,000,000 in August, 1939, to over $27,500,000,000 in August, 1945. Since banks obtain their currency from the Reserve banks, an increase in the volume of currency in circulation invariably leads to a corresponding reduction in the reserve balances of the member banks at the Reserve banks. To keep the government bond market orderly, the Federal Reserve banks bought large amounts of short-term government securities in the open market to counterbalance the expansion of currency circulation. Holdings of such securities by the Reserve banks rose from $2,426,189,000 on August 30, 1939, to $22,295,689,000 on August 22, 1945.

A number of factors contributed to the sharp increase in the volume of currency in circulation. Principal of these were: (1) the sharp increase in the total number of employed and in wages; (2) the large volume of retail trade and the increase in retail prices; (3) the large number of persons who preferred to hold cash instead of bank deposits or savings bonds; (4) black market operations and tax avoidance; (5) the absence of banking facilities, especially in new war industry centers. A return flow of currency from circulation increases the volume of reserve balances. This in turn enables member banks either to acquire additional government securities in the open market or to purchase some of the securities previously acquired by the Federal Reserve banks.

Other Influences on the Money Market

EFFECT OF BUSINESS CYCLE.—The business cycle strongly influences the money market. During the **upswing** of the business cycle, when trade and industrial activity are increasing, the money and credit situation is usually characterized by an expansion of bank credit, an increase in deposits, and some stiffening of interest rates. Discounts of member banks with the Reserve banks may increase and the reserve ratios of the Reserve banks decrease.

In a period of **declining business activity** there is a tendency for bank loans and deposits to decrease, member banks try to repay their borrowings from the Reserve banks, and there is usually a decrease in the volume of currency in circulation. These factors make for lower interest rates. However, money supply conditions may outweigh these cyclical influences of the business cycle.

PRICES AND BANK CREDIT.—Wholesale prices reflect the movement of the business cycle. The upward swing in the cycle usually brings higher commodity prices, while a downward swing is marked by

a decline. The cyclical movement of prices influences the money market. Rising prices usually mean better business which, in turn, requires more bank accommodation. Contrariwise, a decline in prices is usually accompanied by a decrease in business activity and results in a contraction in the volume of credit outstanding.

Relation of New York to Foreign Money Centers

INTERNATIONAL POSITION OF NEW YORK MONEY MARKET.—New York is one of the most important financial centers of the world and for this reason the New York money market reflects to a considerable extent the international as well as the domestic financial situation. The financial relationship of New York to the rest of the world involves not only the international money market, but also the international capital market. While New York may be a creditor on the international capital market to the extent of billions of dollars, it may be a debtor on the short-term money market.

From 1931 to the end of World War II the international financial position of the United States underwent far-reaching changes. After passage of the Gold Reserve Act in January, 1934, the United States received an unprecedented inflow of foreign funds. This huge inflow of foreign funds to the United States was caused primarily by the following factors:

1. The favorable balance of payments of the United States. Since economic and political conditions throughout the world were highly uncertain, Americans refused to extend credit to foreigners, and the latter had to meet their excess of imports over exports in the form of gold.
2. Liquidation of American-owned assets abroad. Because of great uncertainties prevailing in many parts of the world, many American corporations liquidated their foreign holdings and converted their local exchange into dollars. Since sufficient dollars were not available, foreign central banks and stabilization funds shipped gold to the United States.
3. The flight of capital. From 1931 to 1941 there was a huge flight of foreign capital to the United States. This, too, contributed to the huge increase in the monetary stock of gold of this country.

In 1941, the United States Congress passed the Lend-Lease Act. Under this Act the United States government placed huge sums at the disposal of other nations. From 1941 to the end of August, 1945, over $42,000,000,000 of goods and services were provided foreign nations under Lend-Lease. During the war, imports into the United States increased and exceeded exports not covered by Lend-Lease transactions. This in turn led to an outflow of gold from the United States.

During the war, the financial centers played a much less important role in the financing of international financial transactions than in peacetime. This was due entirely to the fact that the foreign trade of many countries became primarily a function of government, Lend-Lease placing large quantities of commodities and services at the disposal of foreign countries for which no dollar payments had to be made.

International financing agencies like the Bretton Woods institutions modify, but do not alter fundamentally, the relation between the New York and other money and capital markets.

THE LONDON MONEY MARKET.—London is one of the oldest and one of the most important money markets. It is the financial center of the British Empire and it has close financial connections with practically every country in the world. The organization of the London market is a development of many decades of international financing and differs in many respects from that of the New York market.

Financial London revolves around the **Bank of England,** which is the institution of note issue and the central bank of the country. The Bank of England differs from the Federal Reserve banks of this country in that it deals with the public as well as with banks.

The joint stock banks and the acceptance houses, the bill brokers, and the discount houses are the other major financial institutions which make up the London money market. In England, the commercial banking business is largely concentrated in the hands of the five large **joint stock banks** with headquarters in London and an extensive system of branches throughout the country. The **acceptance houses** specialize in the creation of bankers' acceptances which are dealt in by the **bill brokers** and **discount houses.**

Unlike New York, the **bill market** is the most important section of the money market in London. The loan market is for the most part auxiliary to the bill market. Bills are bought and sold in the open market by bill brokers and discount houses which carry their portfolios with funds borrowed from the joint stock banks, chiefly on a day-to-day basis. The joint stock banks do not borrow from the Bank of England directly. Before the war, when in need of money, they called loans from the bill dealers, who in turn were thus forced to borrow from the central bank at higher rates. Thus, there existed a buffer between the Bank of England and the joint stock banks.

Open-Market Operations.—Wartime credit policy of the Bank of England, aimed at providing an adequate credit base for financing government deficits, introduced a new technique in its open-market operations. The novel procedure was a departure from the old-established tradition that clearing banks do not rediscount or sell bills they have discounted, and that they have no direct contact with the Bank of England in discounting or rediscounting.

In the past, open-market transactions undertaken for the purpose of expanding or contracting the credit base were carried out through the discount market, which by tradition had been the link as well as the buffer between the Bank of England and the commercial banks. Under the new procedure, whenever a shortage of funds develops and discount houses have difficulty in taking up the Treasury bills for which they tendered the preceding week, the official agents of the Bank of England in the discount market (Seccombe, Marshall and Campion) buy for the Bank of England, and probably for the account of Public Departments, shortly maturing Treasury bills directly from the clearing banks, with the understanding that the latter will use the proceeds to buy from the market eligible bills of the longest maturity. Thus, the clearing banks have become the medium through which the Bank of England aids the discount market.

When the clearing banks have a surplus of funds which cannot profitably be employed in the discount market by buying bills or making loans, the agent of the Bank of England will sell directly to them

Treasury bills held by the Public Departments or the Banking Department. On the other hand, when clearing banks need cash they can obtain it not only by the traditional practice of calling loans from the market, but also by selling bills to the agent of the Bank of England.

This new procedure in open-market operations is an additional instrument of credit control and not a substitute for the old one. There has occurred, however, a significant change in open-market operations in the discount market. In prewar days, when a shortage of funds developed in the market the discount houses were forced "in the Bank"; that is, they either had to rediscount eligible bills at the Bank of England at the punitive Bank rate or obtain 7-day loans at ½% over the Bank rate. Only purchases of bills initiated by the Bank of England could be made at the open-market rates. After the outbreak of the war, however, when the discount market was pressed for funds it could invariably sell eligible bills to the agents of the Bank of England at the market rate. The discount houses have thus been able to obtain assistance from the Bank of England, that is, be "in the Bank," without the penalty of discounting at the Bank rate. Should, however, the credit expansion and low interest rates policy of the war period be superseded by a policy of credit contraction, the official discount rate would regain its significance.

Treasury Deposit Receipts.—In 1940, the British government instituted a new method of short-term borrowing as an alternative to increasing the amount of its Treasury bills outstanding. The amount of the weekly offerings of Treasury bills is kept at a fairly stable level and the Exchequer short-term requirements in any one week are covered by accepting through the Bank of England six-month deposits from the clearing and Scottish banks and also from Empire central banks operating in the sterling area. These deposits, made in units of £500 000, are termed "Treasury Deposits by Banks" or "Treasury Deposit Receipts." Each week the Treasury, in consultation with the Bank of England, determines the amount it requires from the banks and communicates it to the chairman of the Clearing Bankers' Committee, which apportions on Friday the total among the banks. The individual banks are permitted to choose the day of the week in which to make their payments and thus are able to hold down fluctuations in their cash position to a minimum. This method of direct borrowing by the Treasury from the banks is somewhat similar to the banks' deposit of surplus cash at interest with the Bank of England during World War I.

The Treasury Deposit Receipts earn interest at rates fixed from time to time. The rate was fixed at 1⅛% per annum at first, but was reduced to ⅝% in 1945. The Deposit Receipts are nonnegotiable but can be used by the banks at par to pay for their own and customers' subscriptions to new government issues, except Treasury bills. The lending banks may require repayment before maturity subject to a rebate at the Bank rate, which involves a penalty to them.

Owing to their 6 months' maturity and their eligibility for rediscount at the Bank of England, the Treasury Deposit Receipts are included by the banks among their quick assets, after cash, short loans, and bills. At the end of June, 1945, Treasury Deposit Receipts held by the eleven London clearing banks amounted to £1,938,500,000, representing 65.9% of the clearing banks' liquid assets as against 4.6% accounted for by bills discounted. Total Treasury Deposit Receipts on the above date

were £2,075,500,000. All these Treasury Deposit Receipts were repaid by 1952.

Treasury Deposits by Banks enable the Exchequer to obtain funds for six months at a low interest cost. The ease of recalling the Deposits before maturity gives them a degree of liquidity possessed by the Treasury bills. On the other hand, while a bank in a tight cash position can call loans from the market and cease buying Treasury bills, it is hardly in a position to refuse to accept its allotment of the weekly quota of Treasury Deposit Receipts. The Treasury Deposit Receipt has established an additional direct contact, including rediscount facilities, between the clearing banks and the Bank of England.

BANK OF ENGLAND WEEKLY STATEMENT.—The best indicator of the money and credit situation in London is the weekly statement of the Bank of England, which is shown in Fig. 5.

BANK OF ENGLAND

March 26, 1952

ISSUE DEPARTMENT

	£		£
Notes Issued:		Government Debt	11,015,100
In Circulation	1,384,559,997	Other Govt. Securities.....	1,385,724,842
In Banking Dept.	15,796,826	Other Secs.	745,077
		Coin other than gold.....	2,514,981
		Amount of Fid. Issue.....	1,400,000,000
		Gold Coin and Bullion *..	356,823
	1,400,356,823		1,400,356,823

BANKING DEPARTMENT

	£		£
Capital	14,553,000	Government Securities	325,917,853
Rest	3,977,615	Other Securities:	
Public Deposits †	12,142,031	Discs. and Advances 23,561,627	
Treasury Special Account ‡...	516,580	Securities 25,857,435	
Other Deposits:			49,419,062
Bankers 280,263,412		Notes	15,796,826
Other Accts..... 81,254,113		Gold and Silver Coin.....	1,573,010
	361,517,525		
	392,706,751		392,706,751

* At 248s. 0d. per fine oz.

† Including Exchequer, Savings Banks, Commissioners of National Debt, and Dividends Accounts.

‡ Counterpart Funds under Marshall Plan Aid.

FIG. 5. Bank of England Weekly Statement

The Bank of England, as indicated by the above statement, is divided into the Banking Department and the Issue Department. The **Issue Department** has no connection with the public and deals only with the Banking Department. Its function is to issue notes to the Banking Department and to maintain the legal cover for the note issue. Notes issued

in excess of the **fiduciary issue,** which is backed by government securities, must be secured 100% by gold. The fiduciary issue may be increased with the consent of the Chancellor of the Exchequer. The **Banking Department** conducts a general banking business. It accepts deposits, makes loans, discounts bills, buys and sells securities, and acts as fiscal agent for the British government.

An explanation and interpretation of the various items of the Bank of England statement is given below.

Issue Department.—The liabilities of the Issue Department consist exclusively of **Notes Issued** which are classified as: (1) notes in circulation, and (2) notes in the Banking Department. The Issue Department must maintain the prescribed legal cover for all notes issued regardless of whether they are in the hands of the public or in the Banking Department. The cover for the note issue is shown on the asset side and consists of: (1) **Government debt,** a more or less permanent loan to the State, (2) **Other government securities,** (3) **Other securities,** the nature of which is left entirely to the discretion of the Bank, and (4) **Silver coin.** The total of these four items constitutes the cover for the fiduciary issue, while the fifth item, **Gold coin and bullion,** is the cover for notes issued in excess of the fiduciary issue.

Banking Department.—The liabilities of the Banking Department consist of **Capital, Rest** or surplus, and **Deposits.** The Bank of England passed to the ownership of the British government under the terms of the Bank of England Act, 1946. On March 1, 1946 the Bank began operation as a government institution. Most significant from the standpoint of the money market are the deposit accounts. **Public deposits** represent deposits of the British government, the savings banks, the commissioners of the public debt, and the dividend accounts. Just before the dates when large payments of interest on the public debt are due, there is generally a substantial rise in public deposits as funds are accumulated and the disbursement of these funds tends to ease the money market for a few days after the interest dates. **Other deposits** are divided into **Bankers' deposits** and **Other accounts.** Although the British commercial banks are not required by law to maintain reserves with the central bank, as in the United States, it is their practice to keep cash and balances with the Bank of England equal in the aggregate to about 11% of their demand deposits. Thus, an increase in **Bankers' deposits** has the same significance as an increase in reserves of member banks with the Federal Reserve banks in this country; it means a broadening of the credit basis and opens the way for credit expansion. **Other accounts** represent deposits of individuals, business concerns, British banks operating chiefly in the Dominions and foreign countries, and foreign central banks.

On the asset side, **Government securities** represent the amount of government bonds purchased by the Bank of England in the open market. Through the buying and selling of government securities, the Bank of England exercises a strong influence on the money market, just as do the Federal Reserve banks. An increase in government securities held by the banking department means the placing of more funds in the market by the Bank of England, and it is reflected in an increase in bankers' deposits. Similarly, a decrease in the amount of government

securities held by the Bank of England means a decrease in the amount of Bank of England funds in the market. **Other securities** are divided into two parts: (1) discounts and advances, and (2) securities. The item "discounts and advances" is generally interpreted to represent accommodation extended to the money market on its own initiative; an increase is an indication of more stringent conditions in the money market. Securities consist of miscellaneous items the nature of which has never been explained, although it is generally believed that this account includes foreign bills and balances held by the Bank. **Notes** represent the amount of Bank of England notes held by the Bank of England, and notes combined with the small amount of **Gold and silver coin** represent the cash on hand of the Banking Department. The relationship of cash to liabilities in the Banking Department is known as "the Proportion" and is calculated by dividing the Bank's cash, as defined above, by its liabilities, that is, public deposits and other deposits. The "reserve ratio," on the other hand, is the ratio of gold in both departments to notes in circulation and deposits. The most striking change in balance sheet items of the Bank of England is the practical disappearance of gold and the sharp increase in the fiduciary issue. The increase in the holding of government securities by £1,187,000,000 during almost six years of the war corresponds to the rise in the fiduciary issue and in bankers' deposits.

THE PARIS MONEY MARKET.—In spite of the large gold holdings and foreign balances of the Bank of France, the Paris money market is of much less importance than the New York and London markets. Due to the fact that France has never played a major role in world trade and also due to certain characteristics of the French financial structure, facilities for the employment of short-term funds in Paris have not been extensively developed and the French preferred to keep their surplus liquid funds in foreign financial centers. The principal financial markets in Paris were the acceptance market, the market for ordinary commercial bills, or trade acceptances, and the market for "report money," or loans on securities, used to finance speculation on the stock exchanges.

The most important financial institution in France is the **Bank of France,** the central bank, which was nationalized in 1945. It deals with the public and maintains a system of approximately 400 branch offices at which an ordinary banking business is conducted. However, unlike the Bank of England and the Federal Reserve banks, it did not exercise a great influence on the money market because the French banks did not maintain important reserves with the central bank and the open market operations of the central bank were closely restricted by law.

SECTION 4

UNITED STATES GOVERNMENT OBLIGATIONS

CONTENTS

PAGE

The National Debt

Evolution of the debt 175
Magnitude of the debt 175
Composition 176
Distribution 177
Certainty of payment 177
Cost of the debt 178
The budget 179
Debt management 179

Characteristics of Government Securities

Selection of government securities ... 180
Marketable issues 181
Certificates of indebtedness 181
Treasury notes 181
Treasury bonds 181
Treasury bills 182
United States savings bonds 182
Series E bonds 182
Series H bonds 182
Series J bonds 182
Series K bonds 182
Redemption values and investment yields (*f.* 1) 184

PAGE

Other nonmarketable obligations 183
Savings notes 183
The Postal Savings System 183
Tax status of Treasury securities 185
New offerings 185

The Market for Government Securities

Various classes of investors 186
Dealers in government securities 187
How the market operates 188
The role of the Federal Reserve banks 189
Technical aspects of the market 189
Yield patterns 191
Yield curve (*f.* 2) 192

Factors Affecting Prices and Yields

Money market obligations 193
Money market conditions and bond prices 194
Influence of Federal Reserve policies 194
Effects of Treasury policies 195
Nonmanaged factors 196
Major market movements 197

SECTION 4

UNITED STATES GOVERNMENT OBLIGATIONS

The National Debt

We live in an era of vast public debts. Typically, the United States has the biggest and, in certain respects, the best. The national debt has recently become one of the most significant features of American economic life.

Treasury obligations constitute the largest part of the nation's debt structure and the chief investment medium for most financial institutions and individuals. The market for Treasury securities is one of the most important of all financial markets. Yields on government securities are the most influential factor both in the money market and in the market for long-term capital. Prices and yields of government securities are a major concern of the Federal Reserve System as well as of the Treasury.

EVOLUTION OF THE DEBT.—Except for a few years during the early 1830's, the United States has never been out of debt, and it seems as though it never will be again.

Wars breed public debts. At the end of the Revolutionary War, the national debt was about $42,000,000, including interest in default. The War of 1812 raised the debt to $127,000,000 and the Civil War left a legacy of almost $3,000,000,000 of indebtedness. By 1913 the debt had been reduced to less than $1,000,000,000, but during World War I it soared to over $26,000,000,000. Whittled down to $16,000,000,000 by 1930, during the ensuing decade the debt increased substantially for the first time without a war, due to large Treasury expenditures for recovery and relief. Then came the tremendous debt expansion of World War II from $48,000,000,000 at the time of the fall of France in 1940 to $279,000,000,000 early in 1946.

MAGNITUDE OF THE DEBT.—The national debt has now become so vast that previous conceptions of magnitude have been dwarfed. At the end of 1946, the debt was about $100,000,000,000 larger than the entire national income for that year. It compared with a market value of all stocks listed on the New York Stock Exchange at the peak of a bull market in May, 1946, of $84,000,000,000. On a per-capita basis, the debt was equivalent to roughly $2,000 for each man, woman, and child.

The net public debt, computed by deducting from gross debt duplicating items, chiefly federal holdings of federal obligations, was $219,000,000,000 at the end of 1950 and comprised more than 45% of the

net public and private debt of the nation. Other debt aggregates, in billions, were as follows:

State and local government debt	$ 20
Long-term corporate debt	56
Short-term corporate debt	77
Urban real estate mortgages	62
Farm mortgages	6
All other private debt	44
Net debt other than Treasury debt	$265

But the absolute size of the public debt is not the all-important consideration. Learned economists have predicted dire calamity if the debt should rise to levels which since then have been far surpassed. "National solvency," or the ability of the country to support its indebtedness, depends less upon the magnitude of the debt than upon its composition and distribution and its cost in terms of annual interest charges in relation to national income.

It is equally fallacious, however, to assume that "the size of the debt does not matter." The amount of debt has a direct bearing upon the annual interest cost, upon tax policy, upon credit policy and interest rates, and upon the volume of bank deposits, which at times has a major influence upon the price level.

COMPOSITION.—The composition of the public debt affects its distribution among various classes of investors, the cost of debt service and the strength of the Treasury's financial position. The Treasury issues special obligations to government trust accounts to the extent of their available funds, and sells as many savings bonds as it can to individual investors. The balance of its borrowing is done in the open market. Roughly 10% of the debt consists of special obligations held by trust accounts and 20% of Savings Bonds. Almost all of the remainder, around two-thirds of the total, is represented by marketable securities. A tabulation of the debt by types of obligations is published in the Daily Statement of the Treasury at the end of each month. At the end of 1951, the interest-bearing public debt, in billions, was as follows:

Interest-bearing debt:	
Public issues:	
Marketable obligations:	
Treasury bills	$ 18.1
Certificates of indebtedness	29.1
Treasury notes	18.4
Treasury bonds	76.9
Other bonds	.2
Total marketable obligations	$142.7
Nonmarketable obligations:	
Treasury savings notes	$ 7.5
United States Savings Bonds	57.6
Treasury bonds, investment series	13.0
Depositary bonds	.4
Total nonmarketable obligations	$ 76.5
Total public issues	$221.2
Special issues	$ 35.9
Total interest-bearing public debt	$257.1

Chiefly because short-term interest rates have been so low, the Treasury has resorted heavily to short-term financing. The "floating debt," consisting of obligations due within 12 months, amounted to about one-quarter of the total at the end of 1946. Large floating debts have at times been forerunners of monetary inflation. Short-term financing is usually done through the banking system and results in the creation of bank deposits. It is also contended that the Treasury would be in stronger position for future contingencies if a larger part of its debt were placed with ultimate investors in the form of long-term maturities. It has been argued that outstanding savings bonds, being redeemable on demand, comprise a potential threat to the Treasury.

DISTRIBUTION.—The widespread distribution of ownership of public debt is shown by the following estimates of holdings by various classes of investors as published by the Treasury Department for the end of 1951 (figures in billions):

Individuals [1]	$ 64.6
Commercial banks [2]	61.4
Mutual savings banks	9.8
Insurance companies	16.3
Other corporations	20.8
Other firms, institutions, and associations [3]	11.0
State and local governments [4]	9.5
Federal Reserve banks	23.8
U. S. government agencies and trust funds	42.3
Total	$259.5

[1] Includes partnerships and personal trust accounts.
[2] Excludes securities held in trust departments.
[3] Includes savings and loan associations, dealers and brokers, and investments of foreign balances in this country.
[4] Comprises trust, sinking, and investment funds of state and local governments and their agencies and territories and insular possessions.

The stake of the public as a whole in ownership of the public debt can be appreciated only by considering its indirect participation through millions of bank accounts and life insurance policies. Government trust accounts have acquired large amounts of Treasury obligations for their reserves under Social Security laws. Such holdings increased about $12,000,000,000 during the 5 years ended June 30, 1951. The largest of these accounts are the Unemployment Trust Fund, the National Service Life Insurance Fund, and the Federal Old-Age and Survivors Insurance Trust Fund.

CERTAINTY OF PAYMENT.—With the ownership of the public debt so widely distributed throughout all segments of the population, default would be an inconceivable stupidity. Ever since the credit of the United States was established upon a solid foundation under the leadership of Alexander Hamilton, the determination of the American people to honor their obligations has hardly ever even been questioned.

The debt is entirely internal; i.e., payable in American dollars rather than in gold or foreign currencies, and the government can never lack dollars with which to pay. It can obtain funds through its virtually unlimited taxing power; it can borrow funds as needed by virtue of its control over the Federal Reserve System, or, should it so desire in an

extremity, it could simply print paper money in any denominations and amounts.

In actual practice, the Treasury meets most maturing obligations by re-borrowing. The banking system provides a flexible mechanism for supplying the Treasury with any amount which cannot be borrowed on satisfactory terms from other investors. The lending power of the banks can be replenished almost indefinitely by means of reserves provided them through open market operations by the Federal Reserve banks. If commercial banks should ever fail to provide all funds required, the Federal Reserve banks would doubtless provide them. The Treasury is authorized at present to borrow directly from the Reserve banks only to a limited extent. This has been done only as a very temporary expedient, to prevent unsettlement of the money market. Direct borrowing by a government from its central bank in substantial amount is regarded as a long step toward monetary inflation, and it is mentioned here simply to illustrate the ability of the Treasury under all circumstances to secure funds with which to meet its obligations.

There is no real question, therefore, but that all obligations of the United States government will be paid promptly and in full as they fall due. This does not mean the national debt will be paid off; the government can continue indefinitely to meet part of its maturing obligations by re-borrowing. In fact, there are those who recommend that the Treasury should refund some of its debt by issuing perpetual obligations bearing no maturity date, as the British Treasury has done with its "consols."

COST OF THE DEBT.—The cost of the public debt depends upon its size, its composition, and the interest rates prevailing at the time obligations are issued.

The average interest rate paid by the Treasury on its obligations declined from 4% in 1929 to 2% in 1946. Due to the great increase in the debt, however, the annual interest cost rose from $659,000,000 to over $5,000,000,000. Annual interest due amounted to less than 1% of the national income in 1929 and to only about 3% in 1946.

The cost of public debt service is of political significance during peacetime. Treasury officials attempt to keep it down if possible. Increasing holdings of government trust accounts tend to raise interest costs because the Treasury is required by law to pay high rates of interest on most such obligations. Increases in the amount of savings bonds outstanding have the same effect. Therefore, the Treasury is under continuing pressure to do its open market borrowing at as low rates as possible. And since short-term borrowing is far less expensive than long-term, the tendency has been to issue large quantities of short-term obligations.

Although debt service is sometimes referred to as a "burden," the inference should not be drawn that these payments represent a net loss to the economy as a whole. Actually, of course, interest payments are simply transfers of tax revenues to investors. Dollars paid out by the Treasury in interest constitute income to American citizens, corporations, and institutions. As a matter of fact, a goodly proportion of these dollars flows back to the Treasury in the form of income taxes.

There is no formula for determining how large an interest "burden" the nation can support. The answer, if there is one, would have to take

into account the level of the national income, the tax structure and other factors. There is no indication that federal interest charges threaten to become unsupportable.

THE BUDGET.—Fiscal policy is a broad term which embraces the budget policy of the government, i.e., its planned expenditures and anticipated revenues, and the financing policies of the Treasury Department within the budget. It is convenient to use the term "budget policy" to refer to the former and "debt management" to refer to the latter.

The national debt can be reduced, of course, only by means of budgetary surpluses. Without exploring the economic aspects of budget policy in detail, it is pertinent to note that large budgetary surpluses at certain times could be undesirable from the standpoint of economic stability. An overambitious program of high taxes and curtailed government expenditures may plunge the nation into a depression and kill the goose that lays the golden tax eggs. And when employment and production decline substantially, the government is under great political pressure to resort to increased spending, as it did during the 1930's.

It is the Congress, in the last analysis, which enacts the revenue bills and passes upon departmental appropriations. The President, however, usually exercises a major influence over the chief items in the budget, and the Secretary of the Treasury is one of the President's closest advisers. The Treasury's views with respect to fiscal matters are also frequently requested by Congress.

The annual Budget Message of the President, which is delivered early in January soon after the new Congress convenes, is the first official indication of anticipated revenues and expenditures of the Treasury for the fiscal year which will commence the following July 1. Revised budget estimates are made public from time to time at the discretion of the Administration.

Budgetary deficits and surpluses are of special interest to investors because of their effects upon Treasury financing. Up-to-date information is always available as to the status of budgetary receipts and expenditures in the Daily Statement of the Treasury Department.

DEBT MANAGEMENT.—The policies and practices of the Treasury in managing the federal debt include selection of the types and maturities of securities to be offered, terms of new offerings, restrictions as to their eligibility for commercial bank purchase, tax status and redemption features of Treasury issues, payment or refunding of maturing or called obligations, financing of the requirements of governmental agencies, sinking fund operations and the handling of Treasury cash balances in commercial and Federal Reserve banks. These factors, discussed below, have far-reaching implications for the level of interest rates, the volume of bank deposits and the composition, distribution and cost of the national debt.

The over-all objective of debt management should be to fit the debt operations of the Treasury to the needs of the economy. Critics allege that the Treasury has often given too much consideration to its own convenience and to fiscal expediency.

Aims and accomplishments of debt management policy are discussed by the Secretary of the Treasury in his annual report. The report for 1945 stated:

The particular securities of which the debt is composed have been devised as part of a conscious effort to fit the debt to the needs of the classes of investors who hold it. . . . The amounts of debt held by the different investor classes will, naturally, shift with the changing character of the economy; and the debt will have to be tailored to meet these shifting demands. This is part of the policy of flexible debt management.

Not so many years ago, credit management was considered to be the province of the Board of Governors of the Federal Reserve System, and the fiscal requirements of the Treasury were not a major factor in the formulation of credit policy. Today, however, the debt management policies of the Treasury affect credit conditions profoundly, and fiscal considerations have become so important that they at times completely dominate the formulation of credit policies by the Board of Governors of the Federal Reserve System.

Characteristics of Government Securities

United States government obligations enjoy a unique investment status, superior in several respects to that of other classes of securities.

Prompt payment of interest and principal may be considered absolutely certain. The taxing power of the federal government constitutes a first lien upon all individual and corporate wealth and income of the United States. Since the adoption of the Constitution, the financial integrity of the American government has been unblemished.

In the case of marketable government issues, prices have been far more stable than for other securities. This is due partly to their excellent quality, but also to market support operations by the Federal Reserve System and Treasury agencies. The marketability of government obligations is not even distantly approached by any other class of security. Dealers stand ready at almost all times to buy or sell large or small blocks of all types of Treasury issues with very narrow spreads between bid and asked quotations.

These features make marketable government securities the most acceptable collateral for loans. All types of lenders are willing to lend against them at low rates of interest and up to a very high percentage of the market value. There are no margin restrictions on loans secured by government obligations.

The two primary investment risks incurred by investors in government obligations are a decline in price due to an increase in the prevailing level of interest rates, and a decline in purchasing power of the dollars in which interest and principal are payable.

Government securities afford investors a wide variety of choice. Some issues are marketable, others redeemable on demand. Maturities range anywhere from a few days to over 20 years. There are differences as regards tax status, coupon rates and premiums, and eligibility for commercial bank investment. Selection will depend upon the requirements of the individual investor.

SELECTION OF GOVERNMENT SECURITIES.—The investor's first decision is between marketable securities and the nonmarketable issues, i.e., savings bonds and notes. Investment features of the latter are discussed below. As compared with marketable issues,

they can be purchased only in limited amounts, are redeemable on demand at definite schedules of prices, and, if held to maturity, they yield a better return than marketable issues of comparable maturity. Savings bonds mature either in 10 or 12 years, savings notes in 3 years. The former are intended primarily for individuals, the latter for corporations.

Among marketable securities, the investor's fundamental problem is to weigh the importance to him of market stability as against income return. Generally speaking, these two characteristics vary inversely with each other, depending chiefly upon the maturity of the various issues. An investment in 90-day Treasury bills is, as a practical matter, devoid of the risk of price fluctuation, but the return is usually substantially lower than on obligations of longer maturity. On the other hand, while long-term issues provide a higher return, their market prices are likely to fluctuate over a fairly broad range. The long-term bonds, however, obviously have possibilities for market appreciation as well as depreciation.

Appreciation possibilities are not restricted to the longest maturities. Medium-term issues normally fluctuate less than long-term bonds, to be sure, in response to changes in interest rates, but yields on all maturities tend to decline as they approach maturity, as discussed later under the heading, "Yield Patterns."

Tax status is another investment consideration discussed later.

MARKETABLE ISSUES.—The most important marketable securities issued by the United States Treasury are certificates of indebtedness, notes and bonds, all of which are actively traded and are held by many classes of investors. They are coupon obligations, issued in denominations ranging from $1,000,000 down to $1,000 for certificates, $100 for notes, and $50 for certain issues of bonds.

Certificates of indebtedness have maturities of not more than one year. They enjoy an exceptional degree of market stability and liquidity. Commercial banks hold them in substantial quantities as secondary reserves and other investors, especially corporations, buy them at times for the temporary employment of excess funds.

Treasury notes are issued with maturities of more than one year but not more than 5 years. These are also highly liquid, though less so than certificates, and are particularly suitable for commercial bank investment.

Treasury bonds are issued with maturities of more than 5 years. They are usually callable by the Treasury at par at an "option date" several years prior to maturity, and this option date is generally mentioned, in naming an issue, after the maturity date. For example, the 2½s, due December 15, 1972–67, are callable at par on December 15, 1967 or on any interest payment date thereafter to maturity on December 15, 1972. When desired, Treasury bonds are issued in registered form.

There are three chief categories of Treasury bonds: (1) partially tax-exempt issues, all of which are eligible for commercial bank investment; (2) fully taxable issues which are currently eligible for commercial bank investment; and (3) fully taxable issues which are not currently eligible for commercial bank investment. The first group is sometimes referred to as the "exempts" or the "partials"; the first two groups combined

comprise the "bank eligibles" and bonds in the third category are usually called "restricted" or "tap" issues.

At the time of the offering of an issue of restricted bonds, an "eligible date" is specified when they will become eligible for purchase by commercial banks.

Treasury bills are noninterest-bearing obligations sold and quoted on a discount basis. They are usually issued with maturities of 90 to 93 days, and are sold weekly by means of competitive bids, chiefly to banks. In 1951 the Treasury introduced a new type of bill of longer term maturing on tax payment dates to attract the investment of corporation tax reserves.

Obligations of **Federal Land banks, Federal Intermediate Credit banks** and **Federal Home Loan banks** are not guaranteed by the Treasury. The securities of these instrumentalities are generally regarded as ranking second only to Treasury obligations from the standpoint of quality, but they do not enjoy as active a market.

There are also a few small issues of **fully tax-exempt Treasury securities** which are still outstanding, but the market for these bonds is extremely inactive.

UNITED STATES SAVINGS BONDS.—These are designed primarily for individual investors who wish assurance against loss of principal in the event they should decide to liquidate their holdings. Savings bonds are not transferable and cannot be used as collateral for bank loans, but they afford a relatively attractive rate of return if held for a number of years.

There are four types of savings bonds now being issued:

1. **Series E bonds** mature in 9 years, 8 months, pay income only at maturity or earlier redemption, and return $100 for every $75 invested if held to maturity, which represents a compound interest rate of 3% per year. These bonds are redeemable on demand according to a fixed schedule of prices which returns to the registered holder principal in full plus interest at rates which increase with the length of time the bonds have been held, as shown in the accompanying table, Fig. 1. Owners of maturing Series E bonds may extend the maturity date of their holdings for an additional 10 years. There is a special schedule of redemption values for this extended maturity period.

2. **Series H bonds** mature in 9 years, 8 months, are purchased at par, and bear interest paid semiannually by Treasury check mailed to the registered owner. Interest payments vary as shown in Fig. 1. The bonds are redeemable on demand at par. An individual can purchase only up to $10,000 maturity value of Series E or H bonds in a calendar year.

3. **Series J bonds** mature in 12 years, pay income only on redemption, and return $100 for every $72 invested if held to maturity, which represents a compound interest rate of 2.76% per year. They are redeemable on demand according to a schedule similar to that for Series E bonds. An individual can purchase up to $200,000 cost price of Series J and Series K bonds combined in any one calendar year.

4. **Series K bonds** mature in 12 years, are purchased at par, and bear interest at 2.76%, which is paid semiannually by Treasury check mailed to the registered owner. They are redeemable on demand at varying discounts below par, returning the original principal in full less varying

percentages of the interest already paid to the holder, depending upon the length of time the bonds have been held.

All series of savings bonds may be registered in the name of one individual, two individuals as co-owners, or one individual as owner and a second as beneficiary. Series J and K bonds can be registered also in the name of an association, partnership, trustee, or corporation, except a commercial bank. Series K bonds are redeemable at par prior to maturity in the event of the death of the owner or co-owner, or, if they are registered in the name of a trustee, in the event of the death of any person which results in the termination of the trust.

Series E bonds can be redeemed upon presentation by the owner at any time after 2 months from the date of issue. Series H, J, and K are redeemable by the owner on one month's written notice after 6 months from the date of issue. The redemption check is dated the first day of the second calendar month following presentation of the bond with request for payment, and the redemption value is based upon the month in which the check is dated.

OTHER NONMARKETABLE OBLIGATIONS. — Treasury **savings notes,** formerly called tax savings notes, mature in 3 years and are especially designed as liquid investments for the tax reserves and other temporary reserves of industrial corporations. They have been largely purchased by this class of investor.

These notes are redeemable for cash plus accrued interest at the option of the holder without advance notice during or after the sixth calendar month after the month of issue. They can be presented in payment for taxes during or after the second calendar month after the month of purchase. Interest is payable upon redemption or presentation for taxes at rates which vary with the length of time the notes are held. When these notes were first introduced in August, 1941, they yielded a return of only 1.07% if held the full three years to maturity. When other short-term interest rates increased during 1947–48, this return became relatively unattractive. In August, 1948, therefore, the Treasury offered a new series yielding 1.40% to maturity. A further rise in short-term interest rates during 1950–51 led to the offering, in May, 1951, of a new series yielding 1.44% if held for 6 months, 1.61% for one year, 1.78% for 2 years, and 1.88% if held to maturity. Interest on each $1,000 principal amount accrues monthly at a graduated scale, as follows:

First to six months, inclusive	$1.20 each month
Seventh to twelfth months, inclusive	1.50 each month
Thirteenth to eighteenth months, inclusive	1.60 each month
Nineteenth to twenty-fourth months, inclusive	1.70 each month
Twenty-fifth to thirty-sixth months, inclusive	1.80 each month

The notes are in registered form and are nontransferable, but are eligible as collateral for bank loans. Commercial banks can purchase savings notes, but no interest is paid on these subscriptions unless they are used for the payment of federal taxes.

The Postal Savings System, established in 1910, is a government savings deposit plan operated through post offices. Deposits draw interest at the rate of 2% per annum.

(Based on $1,000 Bond)	Series E		Series H		Series J		Series K	
	Redemption Value	Yield from Purchase to Redemption	Check Issued at Beginning of Period *	Yield from Purchase to Redemption	Redemption Value	Yield from Purchase to Redemption	Redemption Value	Yield from Purchase to Redemption
Issue Price	$ 750.00		$1,000.00		$ 720.00		$1,000.00	
Maturity Value	1,000.00		1,000.00		1,000.00		1,000.00	
For period beginning at:								
Issue date	$ 750.00	.....	.....	.....	$ 720.00	.....	$1,000.00	.....
½ year after issue date	754.00	1.07%	$ 4.00	.80%	724.00	1.11%	992.00	1.16%
1 year after issue date	762.00	1.59	12.50	1.65	729.00	1.25	985.00	1.26
1½ years after issue date	772.00	1.94	12.50	1.93	735.00	1.38	979.00	1.37
2 years after issue date	782.00	2.10	12.50	2.07	742.00	1.51	975.00	1.52
2½ years after issue date	792.00	2.19	12.50	2.15	750.00	1.64	971.00	1.62
3 years after issue date	802.00	2.25	12.50	2.21	759.00	1.77	969.00	1.75
3½ years after issue date	812.00	2.28	12.50	2.25	768.00	1.85	967.00	1.84
4 years after issue date	822.00	2.30	12.50	2.28	778.00	1.95	966.00	1.94
4½ years after issue date	836.00	2.43	17.00	2.40	789.00	2.04	966.00	2.03
5 years after issue date	850.00	2.52	17.00	2.49	800.00	2.12	967.00	2.13
5½ years after issue date	864.00	2.59	17.00	2.57	812.00	2.20	968.00	2.21
6 years after issue date	878.00	2.64	17.00	2.63	824.00	2.26	969.00	2.27
6½ years after issue date	892.00	2.69	17.00	2.69	837.00	2.33	970.00	2.33
7 years after issue date	906.00	2.72	17.00	2.73	850.00	2.39	972.00	2.39
7½ years after issue date	920.00	2.74	17.00	2.77	864.00	2.45	974.00	2.44
8 years after issue date	936.00	2.79	17.00	2.81	878.00	2.50	976.00	2.49
8½ years after issue date	952.00	2.83	17.00	2.84	892.00	2.54	978.00	2.53
9 years after issue date	968.00	2.86	17.00	2.87	906.00	2.57	981.00	2.57
9½ years after issue date	984.00	2.88	17.00	2.89	921.00	2.61	984.00	2.61
9⅔ years after issue date	1,000.00	3.00	17.00	3.00				
10 years after issue date	.....	.....	.....	.....	936.00	2.64	987.00	2.65
10½ years after issue date	.....	.....	.....	.....	952.00	2.68	990.00	2.68
11 years after issue date	.....	.....	.....	.....	968.00	2.71	993.00	2.70
11½ years after issue date	.....	.....	.....	.....	984.00	2.73	996.00	2.73
12 years after issue date	.....	.....	.....	.....	1,000.00	2.76	1,000.00	2.76

* Redemption value of $1,000 Series H bond is $1,000 at all times.

FIG. 1. Redemption Values and Investment Yields of United States Savings Bonds

TAX STATUS OF TREASURY SECURITIES.—Interest on most government obligations, including all the marketable securities issued since March 1, 1941 and all series of savings bonds and notes currently being issued, are fully taxable under federal tax laws. All government securities are exempt, however, from state and local taxes except estate, inheritance, gift, or other excise taxes.

In the case of Series E and F Savings Bonds, the annual increment in value is subject to all federal taxes and is taxable as interest either (a) from year to year if the holder elects to report on an accrual basis, or otherwise (b) at maturity or prior redemption.

Interest payable on "partially tax-exempt" bonds, issued prior to March 1, 1941, is exempt from federal normal taxes. It is exempt from federal surtaxes to the extent of $5,000 principal amount of bonds if held by individuals or personal holding companies. There is a similar exemption for such interest from corporation surtaxes, whether upon income or excessive accumulations of surplus.

Panama Canal Loan 3s of 1961 and Postal Savings bonds still outstanding are referred to as being fully exempt from all federal, state, and local taxation, but the Supreme Court has ruled that even for these obligations the exemption does not extend to estate, inheritance, or gift taxes, federal or state.

NEW OFFERINGS.—Terms of all new offerings of marketable Treasury securities, aside from discount bills, are almost invariably designed to cause them to sell in the market at premiums at the time of issue. The premium is small for certificates but may amount to several points in the case of a bond issue. The purpose is to assure that the offering will attract ample subscriptions.

In advance of an actual offering, Treasury and Federal Reserve authorities cooperate in "preparing the market" for the new securities by means of open market operations, public statements, and other steps considered necessary.

Many investors like to subscribe to new offerings partly because they afford a better return than comparable issues already outstanding, and partly because some market appreciation can usually be anticipated. Some subscribers, known as "free riders," have no intention of retaining securities allotted them, but plan to sell them at a profit within a fairly short period, perhaps 6 months, to have the gain taxed as a long-term capital gain.

"Free riding" has at times been quite profitable, especially since speculators usually have little trouble in borrowing many times their own capital to subscribe for new issues. Its volume has been so great at times that some new offerings have been oversubscribed 20 to 30 times. In such cases, subscribers who desire bonds for permanent investment are allotted only a small percentage of their subscriptions and must fill out their needs by buying additional bonds at a premium from "free riders." Treasury officials have at times deplored "free riding" but have not seen fit to take effective steps to control it. During the war period, the profits reaped by subscribers to new issues, including institutions, were enormous.

If a new offering is made at the same time that an outstanding issue is to be retired, holders of the latter are usually given the right to

exchange part or all of their holdings for the new security at par. Before the terms of the financing are announced, therefore, the maturing issue is usually an object of market speculation based upon guesses as to the terms of the new offering. The price of the maturing issue will reflect its anticipated "right value"; i.e., the estimated premium at which the new offering will sell in the market. Maturing issues have sometimes sold on a negative yield basis for a year or more prior to their maturity because of their anticipated value in exchange for new bonds.

New offerings of Treasury notes and bonds are normally made on quarterly tax-payment dates—March 15, June 15, September 15, and December 15. The announcement of the offering includes a description of the issue, restrictions on subscriptions of various classes of investors, and the percentage of cash payment, usually very small, which must accompany subscriptions.

The Market for Government Securities

VARIOUS CLASSES OF INVESTORS.—Commercial banks find government securities ideally suited to their investment requirements because of their safety, market stability, ready convertibility into cash, collateral qualities and diversity of maturities availability. The average bank maintains a secondary reserve of short-term government securities to enable it to meet possible demands for funds from depositors and borrowers. Other funds are invested in medium- and long-term issues, the distribution depending upon the nature and the bank's appraisal of the likely behavior of its deposits, the character of its other assets, the ratio of capital funds to deposits, its earnings position, and the outlook for the bond market. The exemption afforded by partially tax-exempt Treasury bonds is an important investment consideration for many banks, depending upon their tax status.

Because of their preference for short- and medium-term securities, banks are constantly having holdings of government obligations redeemed, and the proceeds from these redemptions are normally available for reinvestment. Also, banks often make changes in their portfolios in order to realize profits, to increase income, or to strengthen their short-term position. The amount of funds available for investment in Treasury securities is continuously changing as between banks in different areas and for the banking system as a whole. Since 1941, most large banks have tried to keep as fully invested as possible at all times and have used the market for short-term government securities as a means of making frequent adjustments in their reserve positions. Because of these factors, the market for bank-eligible government securities is extremely active.

Federal Reserve banks largely hold short-term issues. Their investment operations are determined primarily by considerations of credit policy.

Corporations which find themselves temporarily with excess cash usually invest either in marketable short-term government securities or in savings notes. Concerns which operate pension funds or accumulate their own insurance reserves invest in Treasury bonds, much like insurance companies.

Insurance companies and **savings banks** have become very large holders of government securities, primarily because they have been unable to find other employment for the vast sums they have received to be invested. These institutions generally prefer other types of high-grade securities and mortgages which provide a higher return than governments. But when these are not available to absorb investment funds, government obligations are purchased to secure income with a minimum of risk of price depreciation. Because of their marketability, these government securities can be sold readily when other investments become available.

Both insurance companies and savings banks invest chiefly in the long maturities for the higher yield they afford. They have sold to commercial banks very large amounts of bank-eligible bonds, especially issues which have come within about 10 years of their maturity or call dates. The proceeds have been largely reinvested in longer-term restricted issues, giving higher yields and selling at smaller premiums.

State and local governments invest sinking funds for debt retirement, civil service pension and disability funds, and other trust funds wholly or in part in Treasury securities. Laws or regulations sometimes restrict the investment of such funds to government securities, or public officials may select them of their own accord to avoid possible criticism.

Individual investors' requirements vary greatly. Where safety is the prime consideration, government securities are most desirable. It is generally agreed that a well-rounded investment account should normally contain some proportion of government securities for proper diversification and because of their price stability and marketability. Some individuals operate in government securities on a trading basis partly with borrowed funds, attempting to profit from market fluctuations.

Government trust accounts hold some marketable securities, but the bulk of their investments consists of special nonmarketable obligations issued to them by the Treasury.

DEALERS IN GOVERNMENT SECURITIES.—The great bulk of the transactions in government securities are effected by a few dozen dealers, most of whom have their headquarters in New York City. Larger firms maintain branch offices in principal cities throughout the country.

As the volume of trading in government securities increased after 1932, more and more dealers entered the field. Some are old firms which formerly engaged in general investment banking or dealt in acceptances; others are new concerns organized primarily to deal in government securities. There are also "dealer banks," commercial banks which maintain special departments which transact a government securities business.

The function of the dealer is to act as middleman between those who wish to sell and those who wish to buy securities. The ultimate market for government securities is composed of the several classes of investors described above, dealers providing the essential mechanism to execute buying and selling orders from these investors. Dealers must maintain close contacts with large investors in order to know where large blocks

of certain issues might be placed if offered for sale, or where some might be purchased if a customer should wish to buy.

A dealer, by definition, buys and sells for his own account. Under normal market conditions, he stands ready to buy or sell large blocks of Treasury securities at prevailing market quotations. If he is asked to bid on a large block of bonds which he may not be able to dispose of readily, he may bid somewhat under prevailing quotations or offer to take the bonds on a consignment basis.

Dealers operate with funds far in excess of their own capital, borrowing extensively from commercial banks against government securities as collateral. The use of bank credit contributes greatly to the liquidity and stability of the market for government obligations.

Some institutions make a practice of lending securities from their portfolios to dealers. This enables a dealer to sell and make delivery of almost any Treasury issue, regardless of whether he happens to own some himself. He pledges other securities as collateral for the loan of the issue desired until he acquires these obligations and "repays" the loan.

Dealers watch developments in the market very closely. When they believe that prices may advance, they build up their inventory positions through buying more than they sell, thus adding to their own holdings. They are constantly on the alert to buy or sell issues whose prices get "out of line" with respect to their normal market relationship with other issues. At times, Treasury bonds present opportunities for arbitraging. Some dealers advise customers with respect to the selection of issues, switches from one issue to another, and general investment policy.

HOW THE MARKET OPERATES.—Almost all transactions in government securities are executed by telephone. The dealer states the best price at which he is willing to buy or to sell a given amount of an issue, and if the investor decides to accept that price the transaction is consummated immediately.

Most substantial investors buy and sell directly from or to dealers. Large banks, in addition to buying and selling for their own portfolios, execute transactions with dealers on behalf of their customers, including individuals, corporations, trust accounts, and out-of-town banks. They also hold securities in safekeeping for many of these customers, which facilitates the physical transfer of the securities from sellers to buyers.

Treasury bonds are listed on the New York Stock Exchange and some other exchanges, but notes, certificates, and bills are not. Dealings on the exchanges, however, are infrequent and usually in quite small amounts, seldom exceeding a million dollars a day. By contrast, transactions in all types of government securities among dealers amount to a hundred million dollars or more daily even when the market is inactive, and run into several hundred million dollars on a normally active day. On a busy day, trading may exceed half a billion dollars. Thus, the true market at any given time is to be found among the dealers, and not on the exchange.

Dealers buy and sell small quantities of securities as well as large, but the bulk of the trading volume in governments is made up of blocks of a million dollars or more. Among large investors, transactions of only a quarter or half million dollars are considered relatively small.

Some investors deal through a single dealer whom they have found satisfactory. Large investors, however, frequently "shop around" among dealers in an effort to find one who happens to be able to sell or buy a particular issue at a slightly more favorable price than others. This serves to keep quotations of all dealers for various issues very nearly uniform at all times. Commercial banks usually attempt to spread their transactions among different dealers in proportion to the amount of business they receive from the respective firms in the form of loans and deposit balances.

THE ROLE OF THE FEDERAL RESERVE BANKS.—In recent years the Federal Reserve banks have played a very important role in the functioning of the government securities market. This was particularly true with respect to short-term obligations after 1942, when the Federal Open Market Committee adopted a policy of pegging rates for Treasury bills and certificates.

In the case of Treasury bills, the Committee established a fixed buying rate of ⅜% at which it would purchase bills directly from banks. Within a few years, the Federal Reserve banks had become almost the sole holders of bills. Large commercial banks continued to subscribe regularly for new issues of bills, but ordinarily resold most of their allotments immediately to the Federal Reserve banks. The Federal Open Market Committee unpegged the Treasury bill rate in 1947.

In the case of Treasury certificates of indebtedness, the Federal did not set a fixed buying rate but conducted its operations through dealers. Whenever selling of certificates by investors to dealers tended to drive the market quotations back to par, the Federal bought up the excess supply from the dealers. In like manner the Federal sold certificates to dealers whenever the demand from investors appreciably increased. Early in 1946, the Federal Reserve banks' holdings of certificates rose as high as $9,000,000,000. The Federal Reserve Bank of New York acts as agent for the Federal Open Market Committee and handles most of the buying and selling of government securities for the 12 Federal Reserve banks. As discussed later, these operations at times include medium- and long-term issues as well as money market obligations. The Federal Reserve Bank of New York also acts as agent for government agencies and trust funds in connection with their transactions in marketable Treasury securities. Except for transactions in bills with commercial banks, the Federal deals only with a group of so-called "recognized dealers"—leading firms selected by the Federal which have agreed to certain terms in connection with the conduct of their business.

To further the Federal Reserve policy of maintaining "orderly conditions" in the government bond market, the Federal Reserve Bank of New York keeps in very close touch with the market. Periodic reports submitted by dealers regarding their operations are carefully scrutinized, and advice or admonition may be offered from time to time as circumstances dictate.

The Federal Reserve banks, as fiscal agents for the Treasury, handle subscriptions to new issues, exchanges, redemptions, and the payment of coupons.

TECHNICAL ASPECTS OF THE MARKET.—Government bonds and notes are quoted on a percentage-of-parity basis. Fractions

are quoted usually in 32nds, sometimes in 64ths. Thus a quotation of 101.16 would mean a price of $1,015 for a bond with a par value of $1,000.

Certificates of indebtedness, and sometimes other securities very near to maturity, are quoted on an annual yield basis to maturity. Thus an offering of 7/8% certificates on a .80% basis would mean a price at which this issue would afford a net return to maturity equal to 8/10 of 1% on an annual interest basis.

Transactions in government securities are almost always at net prices. There is no tax involved and dealers rarely charge commissions as such. They obtain compensation for their services in the form of the spread between bid and asked quotations; i.e., they buy at the bid price and sell at the asked price, the differential usually amounting to 2/32nds of a point, sometimes less. In smaller organizations, business may be done on a brokerage or commission basis. Transactions on stock exchanges are subject to fixed commissions. For each transaction, the dealer prepares a "ticket," which is sent to the investor and which confirms the terms of the transaction and presents the computation of the amount due to or from the investor, including accrued interest.

Quotations do not, of course, take into account the amount of interest accrued on the current coupons attached to the securities. This sum must be computed and added to the bill of the buyer. Accrued interest on government securities is computed on the basis of the actual number of days in the interest period, not on a uniform 30-day month basis. Bonds and notes bear semiannual interest coupons, but interest on certificates is paid only at maturity.

Treasury bills bear no interest and are bought and sold at a discount below par. They are quoted on an annual yield basis.

Large dealers issue daily quotation sheets for distribution to investors. Each such sheet shows the dealer's closing bid and asked quotations and investment yields for the various issues as of 4 P.M. the previous day. The tabulation usually shows yields to corporations of each issue after making allowance for federal income tax, the amount of each issue outstanding, its tax status, the price range for the year, and other pertinent data.

Delivery of securities and payment by check are normally made on the first business day following the transaction, Friday transactions being cleared on Monday. Arrangement can usually be made with the dealer for delayed delivery if the securities cannot be delivered on the "regular delivery" date. Also, if the seller of securities wishes to be paid in "federal funds," a check drawn on a Federal Reserve bank, on the regular delivery date or even on the day of the transaction, this can frequently be arranged with the dealer at the time the sale is made.

Dealers in government securities have developed their own trade jargon. A quotation in odd 64ths of a point is usually given in 32nds "plus." For example, a quotation of "101–15 plus" means 101 and 15/32nds plus 1/64th, or in other words, 101 and 31/64ths of a point. A quotation of "101–15, minus to plus" means that the bid price of the issue is 101 and 29/64ths and the asked price is 101 and 31/64ths.

Most issues of Treasury bonds have been dubbed with nicknames. For instance, the 2½s, due September 15, 1972–67, are known as the "bank 2½s" because they are eligible for bank investment, whereas the

restricted 2½s, due December 15, 1972–67, are called the "Victories," or more intimately the "Vics," because they were offered during the Victory Loan Drive in December, 1945.

YIELD PATTERNS.—The phrase "yield pattern" refers to the relationship existing at some particular time between the market yields of various maturities of government obligations. The "pattern of rates," the "yield curve," and the "interest curve" are other synonymous terms.

A yield pattern (Fig. 2) is usually portrayed graphically by plotting various market yields on a chart on which years to maturity or call date are marked along the base of the chart. A curve is then drawn which most nearly fits the pattern made by the yields. Separate curves are drawn for partially tax-exempt issues, for fully taxable bank eligible issues and for restricted issues. Curves are sometimes constructed for yields after deductions based upon prevailing rates of federal corporation taxes. When it is assumed that callable issues will be redeemed on their first option dates, yields are plotted on the basis of these dates rather than maturity dates.

Prior to 1930, short-term rates were sometimes higher and sometimes lower than long-term yields. Since then, however, yield patterns have shown a sharp rise from the very low yields prevailing on short-term issues to the higher returns on medium and long maturities. On October 15, 1946, for example, the yield curve for fully taxable bank eligible obligations began at .80% for 1-year certificates, rose to 1.45% for 5-year bonds, 1.75% for 10-year issues, and ended at 2.17% for the 2½s due September 15, 1972–67.

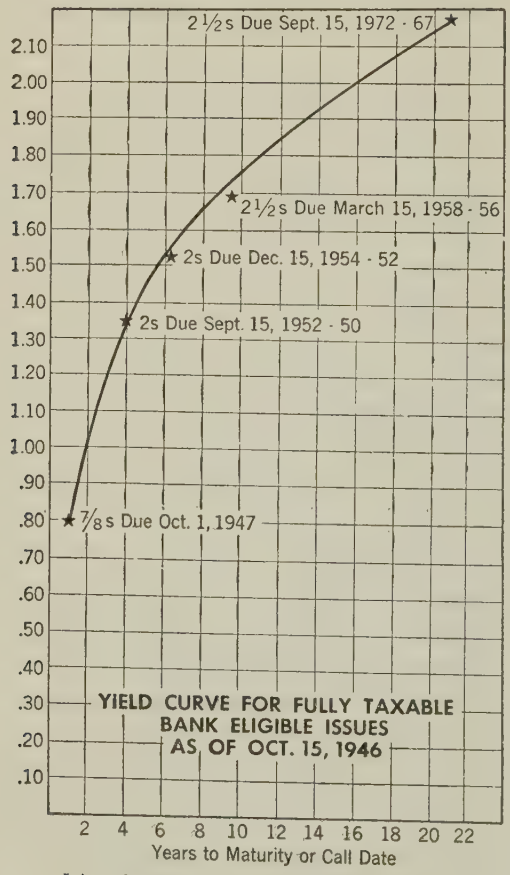
Investors use yield curves in appraising the relative attractiveness of different maturities. This involves judgment as to whether the higher yields available for the longer maturities adequately compensate them for the greater risk of possible price declines.

In recent years, bonds have sold to give progressively lower yields as their redemption dates have approached. This causes them to show market appreciation over amortized cost prices even during periods when the pattern of interest rates remains unchanged. The yield curve gives an indication of the extent to which various issues will tend to show market appreciation as they approach maturity, assuming no fundamental changes in the pattern of yields.

As an illustration, let us assume that a bank purchased bonds of an issue having 10 years to run to the call date on October 15, 1946, on a 1.75% yield basis, and that the pattern of yields 5 years later is the same as on the purchase date. On the bank's books, half the premium paid would have been amortized over the 5 years, so that the amortized cost price on the bank's books is equivalent to a 1.75% yield basis for a 5-year bond. But 5-year issues sell in the market on a 1.45% yield basis, the yield pattern shows. By consulting a bond yield book, we find that the price of a 5-year bond on a 1.45% basis is about a point and a half higher than it would be on a 1.75% yield basis. In other words, the bank could realize a book profit of a point and a half over the amortized cost of its investment were it to sell the bond after holding it for 5 years of its 10-year life.

Many portfolio managers, especially commercial banks, have found it very profitable to sell bonds several years before they mature and to

reinvest in somewhat longer maturities. This is referred to as "riding the interest curve." The steeper the curve, of course, the greater are the profit possibilities in this practice of holding bonds for a few years until they sell at the lower yields applicable to shorter-term obligations.



* Actual market yields of representative issues.

FIG. 2 A Yield Curve

The yield pattern is also used by traders to determine whether an individual issue is selling too high or too low in relation to other issues of comparable maturity, i.e., whether it is "in line" or "out of line" with

the market. By consulting the curve to see what an issue of given maturity and characteristics should yield, this can be ascertained at a glance.

Factors Affecting Prices and Yields

MONEY MARKET OBLIGATIONS.—Separate consideration must be given to determination of yields on short-term, money market Treasury obligations, to how money market conditions in turn affect prices of medium- and long-term bonds, and, thirdly, to how longer-term issues are affected by the policies of the monetary authorities and other factors.

The money market has become predominantly a market for short-term government obligations. One can say, therefore, that the factors which determine the prices and yields of these securities are synonymous with those affecting the money market as a whole, full consideration of which leads into the broader field of money markets and interest rates. The discussion here simply summarizes essential points.

The demand side of the money market depends primarily upon the amounts the Treasury decides to borrow at short term. The supply of loanable short-term funds comes chiefly from two sources: the Federal Reserve banks and the commercial banks, whose reserve position in turn is determined largely by Federal Reserve action. The supply side thus depends largely upon Federal Reserve policy with respect to buying and selling short-term governments, the effects which these purchases and sales have upon excess reserves of the member banks, and other factors which affect member banks' reserve balances. In recent years these other factors have included chiefly the percentages of required reserves fixed by the Board of Governors of the Federal Reserve System, actual or anticipated fluctuations in deposits of the larger banks, gold movements, and changes in the volume of currency in circulation.

It should be noted, also, that the Treasury can influence the reserve position of the banks through changes in the volume of its deposits, both at commercial banks and at Federal Reserve banks. Also, debt retirement by the Treasury directly affects the reserve position of the banks. Repayment of obligations held by the Reserve banks reduces bank reserves, for it reduces open market holdings of the System.

Prior to 1933, rediscount rates of the Federal Reserve banks had considerable influence upon yields of short-term Treasury securities. Thereafter, however, rediscount rates lost their effectiveness as the huge inflow of gold from abroad piled up tremendous excess reserves in the money centers. During the middle 1930's, yields on 90-day Treasury bills declined to the vanishing point. During the early years of World War II, excess reserves declined sharply as currency circulation expanded by leaps and bounds, and at the same time the Treasury adopted a policy of financing a large part of its requirements by means of short-term borrowing. As a result, money market rates began to rise. In 1942, however, the Federal Reserve Board adopted a policy of pegging the rates on Treasury bills and certificates of indebtedness at ⅜% and ⅞%, respectively, by means of open market operations, as has been seen, and this step artificially fixed yields on such obligations.

Throughout the war and during the postwar years, these policies of the Treasury and the Reserve Board completely dominated the money market. Changes in nonmanaged factors, such as gold movements and currency in circulation, which affect the volume of bank excess reserves were counteracted by the policy of pegging rates, which was equivalent to engaging in open market purchases of these short-term issues to the extent required to keep yields unchanged.

MONEY MARKET CONDITIONS AND BOND PRICES.—Money market conditions have a major influence upon prices and yields of medium- and long-term government securities. This has been particularly true since the early 1930's, when the sharp decline in short-term rates created a wide differential between short- and long-term interest rates.

Low yields on short-term securities offer a constant inducement to investors to buy longer dated issues to obtain the better return they provide. Commercial banks must keep sufficient funds either as excess cash or invested in short-term obligations to meet their liquidity requirements. Having set aside enough funds in liquid form for this purpose, however, the investment of the remaining funds which banks have available for investment will depend largely upon their appraisal of the relative attractiveness of short-, medium- and long-term issues. The lower the yields on the short-term, money market obligations, the more attractive the longer issues seem by comparison. Also, the volume of funds which banks have available for investment is affected by money market factors which influence deposits and reserve balances.

The expectation that a differential will continue to exist between short- and long-term rates adds to the attractiveness of medium and intermediate maturities. If, as anticipated, these issues sell at constantly declining market yields as they approach maturity, market prices will reflect appreciation over amortized book values, giving opportunities for profit from "riding the interest curve" as discussed above.

A reduction in the supply of short-term funds may have repercussions upon the bond market. In 1937, for example, when a boost in member bank reserve requirements caused a sharp reduction in excess reserves, the government bond market had its worst break in years. Some banks had to liquidate medium- and long-term bonds in order to obtain the added reserves required, and other banks were in no mood to buy because of the reduction of their available liquid assets.

So close has the relationship been between the money market and the bond market that most Federal Reserve and Treasury policies intended to influence bond prices have been designed to do so indirectly by means of influencing conditions in the money market. Low short-term rates have been the key factor in the easy money policy in recent years.

INFLUENCE OF FEDERAL RESERVE POLICIES.—The policies of the Board of Governors of the Federal Reserve System have in recent years constituted one of the principal factors affecting government bond prices. In addition to adhering to an over-all easy money policy since the early 1930's, the Board has also used its broad powers to maintain "orderly conditions" in the market and, since 1942, to establish interest rates for new Treasury borrowing and refunding.

The decline in bond yields during the 1930's was caused chiefly by the great expansion of excess reserves resulting from the inflow of gold, rather than by any positive actions taken by the Reserve authorities. As a matter of fact, although the Board of Governors did not wish to reverse the downward trend of rates, it did seek to reduce the volume of excess reserves to manageable proportions. This was one reason for doubling member bank reserve requirements during 1936–1937. When this cut in excess reserves was followed by a break in bond prices, however, the Reserve banks stepped in to support the market with open market purchases and later reversed in part the increase in reserve requirements.

During the war, the Reserve banks added more than $20,000,000,000 of Treasury obligations to their portfolios. With these huge open market holdings, the Federal Reserve System's control over excess reserves was greatly increased. Sales of a small part of these holdings could quickly wipe out excess reserves and force banks to rediscount heavily.

Open market operations have usually been confined to short-term obligations except during periods of bond market weakness, when buying has been extended to medium- and long-term issues in order to strengthen prices directly. The ability of the Federal to support prices of government obligations through open market operations is practically unlimited, although beyond a certain point, open market purchases, and the consequent expansion of member bank reserves, would reduce the Reserve banks' ratio of gold certificates to deposit and note liabilities below the statutory 25% level.

Open market operations are also employed at times to keep bond prices from rising, and interest rates from falling, too fast or too far. As a result of its support operations after World War II, the Federal Reserve System now holds substantial amounts of medium- and long-term government bonds which could be sold to stem a market advance.

In recent years the Federal Reserve authorities have shown far greater interest than formerly in minor government bond market fluctuations. They have sought to minimize these fluctuations and to prevent the development of market conditions which might lead to sharper price changes. By means of official and unofficial statements and discussions with dealers, the Reserve authorities have not infrequently attempted to "talk the market up" or down.

The Reserve Board can affect the government bond market also through making recommendations to the Treasury with respect to financing methods and operations.

EFFECTS OF TREASURY POLICIES.—The chief influence of the Treasury on the bond market is determined by the choice and timing of new offerings, its so-called debt management policy. In this way, the supply of particular maturities at any one time can be largely influenced. The desire of the Treasury to borrow at low interest rates has greatly influenced its debt management policy, leading to heavy reliance upon cheap short-term borrowing. The Treasury has also at times exerted a dominating influence upon the open market and interest rate policies of the Federal Reserve System, invariably in the direction of cheap credit.

The savings bond program of the Treasury also has important implications for the bond market. The greater the extent to which sales of savings bonds exceed maturities and redemptions, the smaller the volume of funds that the Treasury must borrow in the open market. Also, net sales of savings bonds tend to increase the annual interest cost of the Treasury and to make the latter more eager to obtain low rates on its open market borrowing. Finally, the large amount of savings bonds outstanding makes the Treasury vitally concerned with the bond market because of the fear that a break in bond prices in the market might start a flood of savings bond redemptions.

During World War II, the Treasury made some efforts to push sales of its securities to nonbank investors in order to restrain the inflationary expansion of bank credit. This was a major motive behind the savings bond program and offerings of savings notes, the virtual exclusion of commercial banks from the right to subscribe to new offerings of Treasury bonds, and the handling of these flotations in such a way as to make participation quite profitable for all investors except banks. Some attempt was made to reduce speculative subscriptions, but the restrictions imposed, except on banks, were far from drastic.

Large offerings of "restricted" issues led to the wholesale liquidation of bank eligible bonds by nonbank investors who wished to acquire the new securities at better yields. It also created a large segment of the government bond market which is not controllable by means of the traditional medium of changing the volume of reserves possessed by the commercial banking system through Federal Reserve policy.

If it so desires, the Treasury can purchase outstanding securities in the market for sinking fund. This could become a potential means of supporting prices for its securities.

NONMANAGED FACTORS.—Even in periods of full-fledged money management, nonmanaged supply and demand factors at times influence government security market yields and prices. In fact, nonmanaged factors usually determine the direction of interest rate and bond market movements. Monetary policy is usually a matter of deciding how far and how fast to permit interest rates to rise or decline in response to supply and demand factors.

The available supply of investments other than government securities, formerly the dominant factor in the bond market, influences the demand for government securities, especially on the part of savings banks and insurance companies. This supply includes not only the volume of offerings of state, municipal, foreign, and corporate bonds, but also the demand for mortgage loans. Commercial banks also buy corporate obligations and make mortgage loans, and their buying interest in government securities is influenced by the volume of commercial and consumer loans available, as well as these other longer-term investments.

Other changes in banking conditions directly influence bank buying of government securities: the flow of funds to or away from the money centers, bank earnings trends, gold movements and fluctuations in currency circulation. Most banks plan to keep a well-balanced distribution of maturities in their commitments. This means that they must constantly buy medium- and long-term bonds to prevent a progressive shortening of their portfolios due to the passage of time. Many banks also try to maintain their investment income by replacing redeemed

issues with longer-term bonds which afford a comparable return. These factors tend to provide a backlog of buying interest in bank-eligible government obligations. As long as the Treasury adheres to its policy of borrowing from banks only at short term, the monetary authorities may permit supply and demand factors to exercise considerable influence over prices of bank-eligible bonds.

Investor psychology at times plays an important role in the bond market. The outbreak of war in 1939, for example, set in motion a selling wave that was largely psychological. Sinking spells that occur periodically in the bond market can sometimes be explained primarily in terms of investor psychology.

In a free market, all of the foregoing factors would assume paramount importance. But under money management, they either contribute to or are largely offset by the policies of the monetary authorities.

Quotations for partially tax-exempt Treasury bonds are affected by special considerations, notably the federal corporation normal-tax rate. Since no more securities of this type are being issued, outstanding bonds tend to acquire a scarcity value as the supply is reduced by redemptions.

MAJOR MARKET MOVEMENTS.—The first World War was financed by the issuance of Liberty bonds, which bore tax-free coupon rates up to 4¼%. Postwar liquidation of bonds bought for patriotic reasons and other causes drove prices of Liberty bonds into the low 80's and yields to over 5½% in the summer of 1920. Throughout the rest of the 1920's, however, the trend of bond prices was generally upward and, at the end of 1929, yields on government bonds were less than 3½%.

Government bond prices declined during the great deflation of 1930–1932, but far less than any other class of bonds. Open market purchases by the Federal Reserve banks in 1932 helped to sustain quotations.

From 1933 until our involvement in hostilities in 1941, the trend of bond yields was steadily downward. Yields for long-term issues declined from an average of about 3½% in 1933 to less than 2½% by the end of 1941. Heavy Treasury deficits were largely financed by selling securities to the banks, which were able to absorb them readily because of rapidly expanding excess reserves resulting from the gold influx.

Throughout World War II, the government bond market was exceptionally stable, reflecting firm control by the monetary authorities and the close cooperation of institutional investors. Colossal offerings in the successive war loan drives were absorbed with a minimum of market disruption, although there was greater reliance upon bank credit than in World War I. While banks could not subscribe directly in the third and later war loans and the Victory loan, they indirectly provided about 40% of the funds raised through absorbing outstanding issues from investors who thereby obtained funds to pay for the new offerings.

Early in 1946 the protracted downward trend of long-term interest rates ended as the Treasury and Board of Governors of the Federal Reserve System indicated they were satisfied with the borrowing rates of ⅜% on bills, ⅞% on certificates, and 2½% on long-term bonds. It was announced, however, that there was no intention of permitting any appreciable increase in these rates. With the public debt so vast and with so large a proportion of it consisting of short- and medium-term

maturities, the Treasury wished to maintain low interest rates for its borrowings.

In mid-1947, nevertheless, the Federal Reserve System finally abandoned this rigid wartime pattern of rates and began to permit successive increases in the market yields of short-term Treasury obligations. This rise in short-term rates, together with the rapidly increasing demand for long-term credit from private borrowers, led to heavy selling of the longer-term government issues. During the closing months of 1947, the Federal Reserve System gave some market support to these bonds at declining prices. On December 24, 1947 the Federal Reserve sharply reduced the prices at which it would buy government bonds, announcing that these pegs would be maintained "for the foreseeable future."

During the ensuing 11 months, uncertainty as to how long the pegs would be maintained plus the continuing strong demand for credit, resulted in heavy liquidation of government bonds by banks, insurance companies, savings banks, and other investors. A further rise in short-term rates and a boost in member bank reserve requirements contributed to the selling pressure. The Federal Reserve System, however, maintained its fixed buying prices of par on some issues, slightly above par on others.

Toward the end of 1948, it became apparent that the forces of inflation were waning, and prices of government securities rose above the Federal Reserve support prices. The market was generally firm throughout 1949 and the first half of 1950.

After the Korean outbreak, however, the demand for credit increased and the Federal Reserve authorities began to adopt measures to restrain credit expansion. Again a rise in short-term rates combined with an increasing demand for credit brought renewed pressure on the long-term market.

In March, 1951, as the result of an "accord" worked out between the Federal Reserve Board and the Treasury, the par pegs were finally abandoned and government bonds were permitted to decline several points below par. It was made clear, however, that the Federal Reserve System is still determined to maintain "orderly conditions" in the government securities market and that it has no intention of abandoning its policy of supporting the market whenever it regards such support as desirable.

SECTION 5

FINANCIAL REPORTS AND ANALYSIS

CONTENTS

PAGE

Evolution of Financial Reporting

Early corporate reports 201
Regulation by the Interstate Commerce Commission 202
Requirements of the New York Stock Exchange 203
Corporate financial statements before 1933 204
Senate investigation disclosures ... 204
Accounting requirements of the Securities and Exchange Commission 205
The trend toward "humanizing" reports 206
Special reports for special groups.... 207

Sources of Financial Data

The annual report—scope, size and value 208
Quarterly and other interim reports.. 210
Statements by corporate spokesmen.. 210
Financial reporting services 210
Moody's Investment Service 211
Standard & Poor's Corp. 211
Fitch Investors Service 211
H. H. Copeland & Son 211
The Institutional Utility Service, Inc. 212
Short-term credit information 212
Dun & Bradstreet, Inc. 212
Part of a page from the Reference Book of Dun & Bradstreet, Inc. (*f.* 1) 213
A typical Dun & Bradstreet, Inc. credit report (*f.* 2) 214-215
The National Credit Office 212
The Robert Morris Associates.... 212

Purposes of Statement Analysis

Fitting a statement for the purpose in view 212
Investment analysis 217
Credit analysis 217
Analysis for financial management.. 218

Analysis of Income Statements

Role of critical analysis 219
Income distortions 219

PAGE

Analysis of sales or revenues..... 219
Intercompany sales 220
Instalment sales and deferred income 220
Cost of goods sold 220
Inventory valuation 221
Minimizing effect of price changes. 221
Changes in method of pricing inventory 222
Intercompany profits on inventory. 222
Expenses subject to managerial discretion 222
Depreciation policy..... 223
Depreciation on appreciation and losses on retirement of property. 224
Depletion 225
Compensation of officers 225
Charges to surplus instead of current income 225
Nonrecurring items 226

Balance Sheet Analysis

Definition 227
Current assets 228
Cash and cash items 229
Marketable securities 229
Notes and accounts receivable (trade) 229
Notes and accounts receivable from officers and affiliates 230
Inventories 230
Investments—securities of affiliates and indebtedness of affiliates not current 230
Property, land, and equipment 231
Intangible assets 233
Deferred charges 233
Current liabilities 233
Accrued liabilities 234
Instalment amounts due on long-term debts 234
Deferred income 234
Funded debt 234
Contingent liabilities 235
Capital stock 235
Surplus 236
Restricted surplus or surplus reserves 236
Additional information 237

PAGE

Consolidated Statements

Advantages and limitations 237
Inclusion and exclusion of subsidiaries in consolidated statements 238
Different closing dates of parent and subsidiaries 238
Investment in subsidiaries consolidated 239
Reconciliation of dividends received from and earnings of unconsolidated subsidiaries 240
Minority interests 240
Intercompany items and transactions 241

The Accountant's Certificate

Role of certification 241

Standard Forms

Forms for credit purposes 242
Financial statement form, Dun and Bradstreet (*f.* 3) 243–244
Financial statement for corporation, long form, Federal Reserve Bank of New York (*f.* 4) 245–248

Ratio Analysis of Financial Statements

The current ratio 242
The "acid test" 249
Net current assets 249
The collection ratio 249
Merchandise turnover 250
Current liabilities to tangible net worth 251
Total liabilities to tangible net worth 251
Net worth to total assets 252
Funded debt to total capitalization 252
Funded debt to net quick assets 252
Tangible fixed assets to funded debt 253
Tangible fixed assets to tangible net worth 253
Tangible fixed assets to total capitalization 253
Turnover of tangible net worth 253
Turnover of net working capital 254
Profit ratios 254
Selective uses of ratios 254
Short-term creditors 254
Long-term creditors 254
Management 255
Comparative statements 255
Comparative balance sheet analysis 255
Application of funds—working papers (*f.* 5) 256
Statement of application of funds (*f.* 6) 257
Comparative profit and loss statement analysis 255
Projection of financial statements.. 260
Robert Morris Associates Form (*f.* 7) 259

SECTION 5

FINANCIAL REPORTS AND ANALYSIS

Evolution of Financial Reporting

EARLY CORPORATE REPORTS.—Little or no financial information was submitted by management to stockholders in a formal report even up to the latter part of the nineteenth century. With stock ownership quite limited, the necessity for giving an account of the management's stewardship of corporate affairs to a large body of owners was not apparent. Indicative of this attitude was the reply received by the New York Stock Exchange when, in the last quarter of the nineteenth century, it attempted to secure financial information from the Delaware, Lackawanna & Western Railroad, whose stock was traded in on the Exchange. The Exchange was told by the corporation that it "makes no reports and publishes no statements and has done nothing of the kind for the last five years."

Ripley (Main Street and Wall Street) cites innumerable cases illustrative of the "public be damned" attitude of corporate officials towards stockholders prevalent at the time. In its annual report for 1901, one corporation included the following statement:

> The settled plan of the directors has been to withhold all information from stockholders and others that is not called for by the stockholders in a body. So far no request for information has been made in the manner prescribed by the directors. Distribution of stock has not meant distribution of control.

The Westinghouse Electric Co. held no annual meeting for almost a decade prior to 1906. During the same period, the U. S. Express Co. neither held meetings nor issued any financial statement whatsoever to its stockholders. The Amoskeag Manufacturing Co., one of the greatest cotton mills in the world, reported chiefly in yards rather than dollars, and the Royal Baking Co. issued no financial report of any kind for more than a quarter of a century. For years no reports were issued by the Lehigh and Wilkes-Barre Coal Co., a policy of secrecy characteristic of the anthracite coal mining industry at the time. The American Sugar Refining Co., one of the largest publicly owned companies at the time with more than 10,000 stockholders in 1900, published no income statements, although under compulsion from the Secretary of State of Massachusetts it did file with that official in 1901 the following sketchy and completely uninformative balance sheet:

Assets		Liabilities	
Real estate and machinery	$ 34,328,664	Capital	$ 88,280,370
Cash and debts receivable	36,862,701	Debts	24,364,027
Sugar, raw, refined, etc.	12,248,640	Reserves, balances	9,907,491
Investment in other companies	39,111,883		
	$122,551,888		$122,551,888

These and other similar flagrant cases of insiders' total disregard of stockholders' rights to a proper accounting of managements' stewardship of corporate affairs caused an early government report on the subject in 1900 to state that:

One of the chief evils of large corporations is the lack of responsibility of the directors to the stockholders. In many cases, the directors hold their positions for a series of years, and practically never make reports that are calculated to give to the individual stockholders much light on the actual methods of management.

REGULATION BY THE INTERSTATE COMMERCE COMMISSION.—One of the earliest government attempts to compel disclosure of the financial condition and operating results of corporations was Section 20 of the Interstate Commerce Act of 1887, which required common carriers to file annual reports with the Commission on forms prescribed by that body. Examination of these reports disclosed, however, that they were not comparable since each railroad maintained its own system of accounts. Some railroads charged the entire cost of new bridges, additional side tracks and other structures to operating expenses, while others considered such expenditures as capital items and charged them to fixed property accounts. It became apparent that uniform annual statements not based on a uniform classification of accounts were uninformative and misleading. To remedy this condition, the Hepburn Act of 1906 extended the power of the I.C.C. over accounting, specifically authorizing that body to prescribe a uniform system of accounts and employ inspectors to examine the books of railroads subject to its jurisdiction.

Henry C. Adams, placed in charge of the Division of Statistics and Accounts and working in conjunction with a committee of the Association of American Railway Accounting Officers, took as a basis the system of accounts of the Rock Island lines. The system he evolved was adopted by the Commission and prescribed in 1907. Revised repeatedly since, with few exceptions the basic principles set down in the 1914 revision are being followed to this day. William E. Hooper, Associate Editor of Railway Age, points out that, "the great and permanent service which the Commission has rendered to the railroad security holders, and the public that is attempting to regulate railroads, is to enforce a uniform system of accounts."

The uniform system of accounts prescribed for common carriers by the I.C.C. differs in few essentials from accounting systems employed by industrial corporations. The accounts are divided into two main classifications, designated as "Income and Profit and Loss Accounts" and the "General Balance Sheet Accounts." Instructions are presented in

considerable detail under the caption "Classification of Income, Profit and Loss and General Balance Sheet Accounts for Steam Railroads." The General Instructions prescribe as follows:

> The carrier's records shall be kept with sufficient particularity to show fully the facts pertaining to all entries made in the accounts provided herein for Income, Profit and Loss, and General Balance Sheet. Where the full information is not recorded in the general books, the entries therein shall be supported by other records in which the full details shall be shown. Such general book entries shall contain sufficient reference to the detail records to permit ready identification, and the detail records shall be filed in such manner as to be readily accessible for examination by representatives of the I.C.C.

The primary aim of railroad accounting regulation is to facilitate regulation, rather than to enlighten investors in railroad securities. Hence, the instructions emphasize the separation of outlays for additions and betterments from expenses. This tends to result in an understatement of expenses and overstatement of earnings, especially as regards unproductive property expenditures. Depreciation of way and structures is required only to a very limited extent, and consolidation of parent and subsidiary statements is not compulsory.

The carrier is required to file with the I.C.C. a very extensive annual report which is available for examination at the Commission's offices in Washington, D. C. Reports required include comparative balance sheets and income, profit and loss statements; numerous supporting schedules; operating and statistical data; and detailed information applicable to number of employees, services which they render and the compensation paid them.

REQUIREMENTS OF THE NEW YORK STOCK EXCHANGE.—As far back as 1866, the New York Stock Exchange attempted to collect financial statements from listed companies. Since 1900, all companies applying for listing on the Exchange must agree to publish annual reports of their financial condition and operating results. This agreement was later expanded so that by 1926 a listed corporation was required to publish, and submit to stockholders at least 15 days in advance of their annual meeting, an annual report containing its financial statements. Where a corporation had subsidiaries, it had to publish consolidated statements of the parent and its subsidiaries, or separate statements of the parent and each of the majority owned subsidiaries. In addition, companies were requested to publish semi-annual or quarterly earnings statements.

The official attitude of the Exchange towards frequent publication of earnings statements was expressed by its president as follows (Annual Report, May 1, 1924):

> Personally, I have little sympathy with the objections advanced against the publication of frequent company earnings statements. The railroad companies have benefited themselves as well as the public by complying with the demands of the government for more adequate and more frequent reports. In the industrial field, the frankness with which the officials of the United States Steel Corporation have met the public has likewise been a most important factor in its prosperity . . . In my opinion, there are many companies now furnishing only annual earnings statements which should make these reports quarterly or at least semi-annually.

But examination of the reports filed with it soon convinced the Committee on Stock List of the New York Stock Exchange that frequent reporting could be confusing and misleading where the statements failed to make a full and fair disclosure of the financial and operating data essential for appraisal of the value of the corporate securities. Accordingly, during the period 1926–1933, immediately prior to the passage of the Securities Act, the Exchange intensified its efforts to secure adequately informative financial reports from listed companies. Progress was made through conversations with officials and accountants of listed corporations; through an invitation extended to the American Institute of Accountants to appoint a Committee on Cooperation with the Stock Exchange "to educate the public in regard to the significance of accounts, their value and their unavoidable limitations; and to make the accounts published by corporations more informative and more authoritative"; through public addresses by stock officials emphasizing the need for more informative financial reports; and through provisions in stock list agreements to force upon newly listed corporations accounting and reporting requirements considered essential to informative reporting.

CORPORATE FINANCIAL STATEMENTS BEFORE 1933.—The first really modern type of annual report was published by the United States Steel Corp. in 1902. Judge Gary, its president, in issuing its first report stated that "corporations cannot work on a principle of locked doors and shut lips." This example was followed by the comprehensive report of the General Motors Corp., which in 1916 was the first to announce formally that it would publish semiannual balance sheets and profit and loss statements in addition to its regular annual report.

Among public utilities, the Philadelphia Co. and the Consolidated Gas, Electric Light & Power Co. of Baltimore issued reports which were simple, understandable and as informative as their complicated structure would permit. Among smaller concerns, the Dennison Manufacturing Co.'s annual report was outstanding, combining full publicity with pictorial evidence of the development of the business.

In contrast were the sketchy, abbreviated, uninformative, and misleading reports of many companies whose securities were listed on the New York Stock Exchange. A large number, prior to 1932, failed to disclose sales and cost of sales. In its 1925 report, the National Biscuit Co. showed merely one item, "Earnings, Year 1925." The Allied Chemical and Dye Corp. informed its readers that the published income account "does not by any means give a clear picture of the annual earning power," and "that the balance sheet by no means discloses the true value of the company's fixed assets." Of its 1925 published report, Ripley observed "that not even the most expert analyst can discover from its attenuated income statement what is the basis of its various revaluation, retirement and depreciation reserves." And, continued Ripley, "it approaches public scandal that corporations of such importance should thus play fast and loose, not only with the public, but with those whose capital is really invested in the business."

Senate Investigation Disclosures.—In the case of the Guardian Detroit Union Group, a group of banks and trust companies operating in Detroit and elsewhere in Michigan, officials testified before the Senate Banking and Finance Committee investigation of stock market practices

that the financial statements to stockholders were largely untruthful, concealing true financial and operating conditions. Annual reports submitted to the Michigan Securities Commission for 1930 and 1932 showed substantial losses, but no report was made to stockholders to that effect for 3 years. When asked by counsel for the Senate investigating committee why these losses were not disclosed in the annual report to stockholders, the chief accountant for the Group replied: "It would have had a reactionary effect on the public and might have caused a collapse of the banking institutions we were operating."

Clarence Dillon, of Dillon, Read & Co., testified at this investigation:

> We find that we cannot get sufficient of the right kind of information to allow us to form an intelligent judgment on this, that or the other security. There are some securities that are even listed on the stock exchanges that are widely dealt in concerning which we are unable to get the particular kind of information we want, at the intervals we would like to have it, in order to form a fair judgment.

Senator Duncan U. Fletcher, chairman of the committee investigating stock exchange practices, reported to the Senate:

> The Committee had repeatedly heard testimony illustrating the evasions, suppressions, distortions, exaggerations and outright misrepresentations practiced by corporations with intent to cloak their operations and present to the investigating public a false or misleading appearance as to financial condition.

These findings were supported by an independent study by the Twentieth Century Fund Research Staff which came to this conclusion:

> The official financial reports of corporations constitute by far the most important source of information for the investor . . . Time and time again the investor finds it impossible to make an intelligent decision because he lacks comprehensive, significant, up-to-date, understandable information about a corporation.

ACCOUNTING REQUIREMENTS OF THE SECURITIES AND EXCHANGE COMMISSION.—The heavy losses incurred by investors in the 1931–1933 era resulted in federal regulation of security issues and trading. The Securities Act of 1933, the Securities Exchange Act of 1934, the Public Utility Holding Company Act of 1935, and the Investment Company Act of 1940 gave regulatory authority over financial reporting to the Securities and Exchange Commission. The second annual report of the Commission stated that one of the major purposes of the Securities Act of 1933 was "to place adequate and true information before the investor." A key objective of the Securities Exchange Act of 1934 was "to make available to the average investor honest and reliable information sufficiently complete to acquaint him with the current business conditions of the company, the securities of which he may desire to buy or sell."

The Commission is authorized "to prescribe the form or forms in which the required information shall be set forth, the items or details to be shown in the balance sheet and earnings statements, and the methods to be followed in the preparation of accounts, in the appraisal or valuation of assets and liabilities, in the determination of depreciation and depletion, in the differentiation of recurring and non-recurring income, in the differentiation of investment and operating income, and

in the preparation, where the Commission deems it necessary or desirable, of consolidated balance sheets or income accounts of any person directly or indirectly controlling or controlled by the issuer, or any person under direct or indirect common control with the issuer." (Section 19a, Securities Act of 1933, and Section 13b, Securities and Exchange Act of 1934.)

Each registered company, under both the 1933 and 1934 acts, is required to include as part of its registrant statement and annual reports a set of financial statements for (a) the registrant, (b) the registrant and subsidiaries consolidated, and (c) unconsolidated subsidiaries. Preparation of these statements is governed by Regulation SX, which prescribes the form and content of the balance sheets, profit and loss statements, schedules, footnotes, and the certificate of the independent public accountants. As a further guide, the Commission from time to time publishes opinions of its Chief Accountant on major accounting questions and administrative policy with respect to financial statements.

Unlike the Interstate Commerce Commission, however, the Securities and Exchange Commission has prescribed neither a uniform system of accounts nor a uniform method for the preparation of the financial reports required. Consistent with the rules prescribed in Regulation SX, the registrant is permitted to report its financial statements "in such form and order, and may use such accepted terminology as will best indicate their significance and character in the light of the provisions applicable thereto." To assure proper disclosure, however, the statements filed are examined by the Commission's staff to determine whether they have been prepared in accordance with "recognized and accepted principles of accounting" and whether they comply with the rules and regulations prescribed by the Commission. Those statements which do not meet these standards are cited deficient and returned for correction. Unless the financial statements are amended in accordance with principles of accounting acceptable to the Commission, that body may, under Section 8(b)(d) of the Securities Act, and Section 19(a) of the Securities and Exchange Act, refuse to permit the registration statement to become effective or suspend the effectiveness of a registration already effective. Since Section 5(a) of the 1933 Act and Section 12(a) of the 1934 Act make it unlawful to sell or trade in such securities unless a registration statement is in effect, the Commission actually has the power to determine what shall and what shall not be considered "recognized and accepted accounting practices." This power has had a profound effect on the accounting profession and in many instances has resulted in more comprehensive and informative reports to stockholders. The registration statements and annual reports filed with the Securities and Exchange Commission are available to public inspection.

THE TREND TOWARD "HUMANIZING" REPORTS.—The formal, dry annual report to stockholders long in vogue is giving way to more colorful, interesting and "humanized" annual reports. In the preparation of annual reports, there are two major groups of readers to be taken into account, those who are technically trained in understanding financial statements and those who are not. The former includes investment analysts, accountants, controllers, treasurers, credit men, top management personnel, economists, and so on, many of whom also use other sources of information like statements filed with the S.E.C.

The latter includes the vast majority of stockholders who are neither trained nor experienced in financial statement analysis and whose primary, and often only, source of information on corporate affairs is the annual report. The need for securing and retaining the goodwill of this group has become increasingly apparent to alert managements. Accordingly, more and more annual reports in the last decade have been prepared so as to appeal primarily to this vast group of stockholders. Pictures, graphs, and other popular features have been included to make the financial statements more interesting and informative. An examination of approximately 400 of the best 1944 reports, selected by the Financial World, showed 1369 features used including (Am. Mgt. Assn. Research Report No. 10)

1. Financial comparisons (two years or more): 24.3%.
2. List of plants, offices, stores, etc. (picture displays): 19.5%.
3. List of pictorial display of products or services: 16.1%.
4. Statistical summary (highlights of the year, report in brief or thumbnail review): 11.2%.
5. Pictorial graphics (line and bar charts not included): 8.3%.
6. Honor roll of employees in service, or service flag: 8.3%.
7. Sales dollar breakdown or simplified balance sheet: 8%.
8. Photographs of officers and/or directors: 1.8%.
9. Photographs of corporation president: 1.4%.
10. Anniversary number: 1.1%.

The Annual Survey of Stockholders Annual Reports, originated in 1940 by Weston Smith of the Financial World, has done much to stimulate managements' interest in improvement of reports to stockholders.

A danger in this type of report is that it often presents an exaggerated appearance of simplicity, with the result "that the analysts cannot get much of what they need, but they know it, while the untrained will not get much, but they generally do not know it." Commenting on this trend, Dr. Haney has said (Financial World, October 2, 1946):

> There is some tendency to jazz up reports of corporations by free use of color and pictures. In some cases this seems to go too far. Each company must consider carefully whether such instruments of attention, value and superficial interest can make up for any lack of adequate data concerning the company's financial position, earnings, expenses and business plans.

SPECIAL REPORTS FOR SPECIAL GROUPS.—In addition to the annual report to stockholders, some companies prepare separate reports for special groups. A separate annual report addressed to employees is issued by a minority of large corporations; the Santa Fe Railroad addressed a separate 1945 report "To All Santa Fe Employees"; the Insurance Company of North America's colorful and picturesque 1944 report was captioned "1944 Report of Management to Employees."

There are two major schools of thought on special annual reports. One group advocates a single report addressed to both stockholders and employees, made understandable and attractive to appeal to both. (Good examples are Caterpillar Tractor Co., The Borden Co., and General Foods Co. This latter report for 1945 is addressed to "stockholders, employees, and customers.") The second group advocates a separate report to employees. (General Motors Corp., Swift & Co., United Aircraft Corp., Santa Fe Railroad, and Consolidated Edison Co. make such separate reports.) The Financial World has long advocated

one modernized annual report to serve the interests of stockholders, employees, dealers, consumers, and the general public. Speaking for this group, Weston Smith said (Financial World, July 3, 1946):

> It has been the experience of some corporations, which have prepared two separate annual reports, that labor union leaders often compare the statement to stockholders with that for the employees, and found that the latter has omitted certain information. In some instances this oversight has provided ammunition for "another grievance," and even a demand to "see the company's books." When the same report is distributed to these two most important sections of the company family, there can be no such cause for misunderstanding.

The Springfield Fire & Marine Insurance Co. prepares a special annual report addressed to customers, which is digested in the company publication.

Sources of Financial Data

THE ANNUAL REPORT—SCOPE, SIZE AND VALUE.—Current annual reports run from the two-page affair of the $50,000,000 Cannon Mills Co. to the 96-page report of the Diamond Match Co. Most reports consist of from 20 to 40 pages, with some in the 60-page group and a few in the 12- to 16-page group. The largest report of recent years was the 1937 report of Diamond Match, which ran 237 pages.

Many modern reports contain financial and nonfinancial data covering a period of years to facilitate analysis. A number depart from conventional accounting terminology, substituting account titles more descriptive to the layman. Thus, the 1944 annual report of The Caterpillar Tractor Co. had a chart comparing sales for the years 1930–1944 on the second page, followed immediately by a comparison of the latest 2 years' sales, cost of sales, and other expenses, net profit and profit per share of common stock. Increases or decreases for the year are shown with this 2 years' comparison. The following page contains a bar diagram of expenditures for land, buildings, machinery, and equipment for the 15 years, together with the annual charges for depreciation and amortization. The separate "Statement of Operations for the Calendar Year 1944" lists sales, cost of materials, wages, depreciation, interest, federal taxes, total profits for year, profits per share, dividends paid in cash, profits for the year retained in the business, and profits for past years retained in business since incorporation in 1925. This information is presented in a supporting schedule for the 15 years 1930–1944. The "Statement of Financial Position" for the year 1944, with comparative data for the period 1930–1944 follow. A supporting schedule of "Land, Buildings, Machinery and Equipment," with the amounts of depreciation and amortization charged to operations during the 15-year period, is included. Another feature is a 15-year table showing in detail, year by year, the "source and disposition of working capital." The financial part of the report is concluded with a 20-year comparative study of changes in common and preferred stock; profits for the year, dividends and other charges, and the net amount of profits transferred to surplus and retained in the business; the number of common and preferred stockholders, number of shares outstanding, and dividends paid per share common and preferred.

In the nonfinancial part much space is devoted to employee relations. Such topics as training, employment, industrial and labor relations, the employees' retirement plan, and wage problems are discussed. Two readable charts are included: one presents a comparison of the average number of employees each year, and the other indexes of average hourly wages and average annual wages of hourly paid employees.

The Chesapeake & Ohio Railway, General Mills, The Borden Co., General Foods Co., Electric Boat Co., Swift & Co., and General Motors and many other companies have issued annual reports of comparable scope.

Many annual reports, however, still present very sketchy financial information and little or no comparative data. This has been true especially of more closely held companies like Singer Sewing Machine, as well as the general run of reports of banks and insurance companies. Dr. Haney recommends that a comparative statistical table should accompany each corporation's annual report to permit comparisons from year to year. Tabulations of this kind, he feels, help the stockholder to appraise the value of his shares and the employee to find out how his weekly earnings compare with the average for the company or industry. He suggests that the following data be presented on a single page in the annual report covering at least 3 years, with adjustments for the particular type of business (New Fashions in Annual Reporting, by Lewis H. Haney, Financial World, October 2, 1946):

Total net sales.
Total physical volume.
Total operating expenses.
Total net earnings.
Total stock outstanding.
Total stockholders.
Total dividends.
Total employees on payroll.
Total wages and salaries.
Average weekly wages per employee
Cost of living.
Total taxes paid.
Taxes per share.
Taxes per wage dollar.
Net profits per share.
Dividends per share.
Percentage of profits on sales.

From such data, stockholders could compute the following indexes of efficiency which Haney considers of major importance in appraising management performance:

Ratio of expenses to net sales ("Operating Ratio").
Turnover of total capital used—the ratio of total sales to total money employed in the business.
Turnover of fixed capital.
Turnover of net worth.
Turnover of inventories.
Turnover of accounts receivable—the average collection period.

In a further attempt to give stockholders a more intimate picture of corporate affairs and thereby cement better relationships between stockholders and management, certain corporations have moved the locale of their annual meetings from the state of incorporation to the part of the country where most stockholders reside. Thus, the Transamerica Corp. transferred its meeting place from Wilmington, Delaware, to San Francisco, California, since the majority of its shareholders are Westerners and the company's chief financial interests are in that section of the country. Fairchild Camera & Instrument Corp., at the suggestion of its stockholders, moved its meeting place in 1946 from Delaware to Jamaica, L. I., where its executive offices are located. Where, for tech-

nical reasons, it has been found impracticable to hold meetings in a centrally located spot, some corporations have offered free transportation to stockholders wishing to attend the annual meeting. The American Tobacco Co., in the proxy statement sent its stockholders, requested that those who wished transportation to the annual meeting at Flemington, N. J., would receive it if the management were advised, with the result that the meeting was far better attended than would have been the case otherwise. In 1946, L. S. Starrett Co. sent, together with its proxy notice, a slip on which it stated that the management would be pleased to welcome a larger personal representation of stockholders at the annual meeting and that it was the management's desire to know the stockholders better and for the stockholders to get to know their company's management better. General Mills Co. inaugurated the practice of holding separate "regional meetings" of stockholders in leading cities, where the annual report is presented on slides and stockholders are invited to ask questions from the floor.

QUARTERLY AND OTHER INTERIM REPORTS.—Many corporations also send to their stockholders interim reports. These may be (a) quarterly statements—some with the dividend checks (Air Reduction Co., Inc., American Telephone & Telegraph Co., Inc.), others under separate cover (Pacific Gas & Electric Co.), and still others through news releases (McKesson & Robbins, Inc.); (b) semiannual statements (The Kroeger Co.); (c) dividend **stuffers** or inserts other than quarterly reports (The American Pulley Co., Air Reduction Co., Inc.); and (d) reports of business transacted at annual meeting of stockholders (Solar Aircraft Co. distributes minutes of stockholders' meetings to those who were present; Swift & Co., Western Union Telegraph Co., and F. W. Woolworth Co. send to all stockholders, in printed form, minutes of the annual meeting; the United States Rubber Co. sends to each stockholder a printed copy of the president's remarks, together with a digest of actions taken at the annual stockholders' meeting).

STATEMENTS BY CORPORATE SPOKESMEN.—Additional sources of financial information are statements of corporate officials given to the press or contained in public addresses. These may be reprinted and mailed to stockholders, either separately or with the dividend checks or interim reports. Such statements may provide information about financial condition and policies, plans for future expansion, labor relations, government controls, dividend payments, contemplated new financing, and so forth. The General Electric Corp. sent stockholders with the 196th dividend a copy of an address by its president, Charles E. Wilson, explaining in detail the financial condition and operating results of the company reflected in the last annual report and outlining the company's future policies affecting employer-employee relationships, government regulations, new products, plant expansion, and prices. Similar information is sent out from the office of the president of Continental Motors Corp. (1946), John Morrell & Co. (The Morrell News Letter Quarterly, 1946), and Minneapolis Honeywell Regulator Co. (News Briefs for Stockholders, 1946).

FINANCIAL REPORTING SERVICES.—The investor seeking information about the finances, operations, and management of a corporation will find valuable material in such services as Moody's Investment

Service, Standard & Poor's Corp., Fitch, H. H. Copeland & Son, and the Institutional Utility Service. For business houses selling on short-term credit and commercial banks making short-term loans, pertinent information can be obtained from such national credit agencies as Dun & Bradstreet, National Credit Office, and Robert Morris Associates.

Moody's, Standard & Poor's, and Fitch are the major national investment services. They present information and opinions from the point of view of the investor, provide a basis for reaching a judgment about security values.

Moody's Investment Service publishes five manuals: Governments & Municipals; Banks, Insurance, Real Estate, Financial, Investment Trusts; Industrials; Public Utilities; and Railroads. The manual of basic information is published once a year, and semiweekly supplements keep the material up-to-date continuously. A dividend record provides a continuous record of dividend payments, a stock of record calendar, list of stock offerings, details of preferred stocks called, stock tenders asked, a list of dividend meeting dates, and full details on income bond interest payments. A bond record shows coupon rates, maturity, interest dates, current call price, Moody's rating, current market price, maturity yield, government bank classification, government 18-month price average, price-range, etc., for corporate bonds.

Standard & Poor's Corp. issues a factual service consisting of (a) Corporation Records, (b) Dividend Record, and (c) Bond Record. The Corporation Record, furnishing financial information on American and Canadian corporations and their securities, consists of 6 loose-leaf alphabetical volumes, revised monthly, with a Daily News section. The Dividend Record prints details on dividend announcements, rights, stock redemption and tenders, etc. A Dividend Meetings section lists important meetings one month in advance. The Called Bond Record reports daily bond and preferred stocks calls and tenders, sinking fund proposals, definitive securities, defaulted bond data, and income bond interest payments.

Fitch Investors Service includes (a) a Bond Service, (b) a Statistical Service, and (c) individual bulletin service. The Bond Book, published weekly, contains statistical descriptions and ratings of railroad, public utility, industrial, and real estate mortgage bonds of the United States and Canada; U. S. government issues, and external dollar bonds of foreign governments.

The Statistical Service covers companies whose securities are traded in any market, listed or unlisted. The Daily News section includes new security offerings, new and revised Fitch ratings, late earnings reports, balance sheet, and salient corporation news items. A Daily Dividend section lists ex-dividend, ex-rights, payable and declaration dates, and related data. The Daily Redemption section includes announcements of retirement of preferred stocks and bonds.

H. H. Copeland & Son.—This organization, which exemplifies a specialized investment service covering a particular class of securities, represents a group of large investment institutions comprising insurance companies, banks, trust companies, and others, in a cooperative and confidential capacity in the preparation of **freight traffic density maps**

and tables. Density maps picture the flow of traffic over each portion of a railroad, and thus indicate the investment status of liens on particular parts of a railroad system.

The Institutional Utility Service, Inc. undertakes to correlate and present statistical information on electric and gas utility companies of the United States and Canada. Physical and operating data are interrelated with the pertinent financial figures to give ratios which portray trends and operating performance.

SHORT-TERM CREDIT INFORMATION.—Data upon which to base short-term analyses are available from the following sources:

Dun & Bradstreet, Inc.—This mercantile agency is a nation-wide and international organization for the collection, analysis, and dissemination of credit information. Such information is contained in the Reference Book and the Credit Report.

The Reference Book (Fig. 1) was first published in 1859 with 20,000 names. It now lists more than 2,000,000 names of business enterprises in the United States and Canada. Trade classifications are identified by symbols on the left, while financial and credit ratings are indicated on the right of the trader's name. The Reference Book is revised six times a year and is issued in January, March, May, July, September, and November. Changes reflect new names entering the field of business, deletions of defunct concerns, revisions in rating upward or downward, changes in name styles, and alterations in the names of banks and their principal officers. The Reference Book records the change, but the nature and circumstances of the change are given in detail in the Credit Report.

The Credit Reports are uniform in style, facts being presented in the order of their credit importance. Each report is divided into the following sections: (a) history, (b) method of operation and fire hazard, (c) financial statements, (d) trade reports, and (e) summary and rating. A typical report is shown in Fig. 2.

The National Credit Office secures financial statements from thousands of firms and verifies the contents directly with the independent public accountants. Photostatic copies of the statements and verifications are available to the credit grantor immediately on request.

The Robert Morris Associates is a national association of bank credit men. The service is a highly specialized one, almost exclusively for member banks.

Purposes of Statement Analysis

FITTING A STATEMENT FOR THE PURPOSE IN VIEW.—Generally speaking, there are at least three groups who are interested in the financial statements of a business enterprise. These are: (1) owners or investors, (2) creditors, and (3) management. While all are interested in the financial condition and operating results of the organization, the primary information which each seeks to obtain from these statements differs materially, reflecting the purpose which the statement is to serve. Management is primarily interested in a tool which will measure costs and efficiency and facilitate intelligent decisions. Investors desire primarily a basis for estimating earning power. And credit men

WEST UNION—1,334—Adams (7)
(R D to cedar Mills)
SAT. BK. OF ADAMS COUNTY.....$108M
E. Smith, Pr. Blanche B. Frame, Cas.

Adams Rural Electric Cooperative, Inc. .....
Blanton John.....Gar
Branson Nathan E.....Feed
Brauner Bros.....Paint Paper & Mfg Brooms
Brown Wm. A.....Drugs
Caldwell W. T.....Dept. Store
Caldwell's Bargain Basement...Dept Store
Cotterman's Store.....
Crawford-Frame Dry Goods Co. Mi...
Davis Lawrence H.....Varnish
Daye R. Bertram.....Hware
De Berrienne Lefte & Hattie.....G S (Br of Portsmouth)
Defender Publishing Co. (Inc.).....
Earhart & Earhart TN.....Saw Mill (Br of Fayette)
Edgington Donald.....Fill Stn & Gro
Ellison Guy R.....Shoe Rep
Erwin Clarence M.....Billds & Lumb
Grooms Samuel J.....S Met Wks
Harsha J. W. & Son.....W & R (Also Gasoline) Oil
Holmes & Jenkins.....Fill Stn & Gro
Jones Oral.....Ser Stn
Kamp Frank J.....Hware Mill & Lbr
Kimble Mrs. Clara D.....Pubr & Prtg
Lafferty Funeral Home.....
Lafferty Wm. .....Mort
McClelland Mrs. Lena.....D G & Wwear
McFarland Dorsey S.....Real
McHenry Supply Co. Wi.....Lbr
Maley Arthur .....Used Autos & Parts
Mills Charles M.....Hware Mill & Lbr
Mosier Roy C. & Son.....Implts
Mosier Wilbur R.....N & U Furn
Mulgrew Henry C.....G S
Powell Mrs. Nancy Fields NR.....G S
Prather Chas. T.....Wallpaper
Richards Walter L.....Meats
Roush Carles.....Fill Stn
Roush Henry S.....Fill Stn
Ryan Robert M. NR.....
S. & M. New Store .....G S
Scott & Edgington.....Fill Stn & Gro
Scott's Service Station.....Ser Stn
Stultz Ora M. (Mrs. J. O.).....Gro
Thompson Bros.....Hware
Trehy Joe C .....
Young W. Ralph NR.....Gro

WEST UNITY—920—Williams (49)
WEST UNITY BANKING CO.....$100M
Guy S. Allen, Pr. W. E. Grisier, Cas.

Allen Ed.....S Met Wks & Plbg
Beach Carl.....Furn & Stoves
Boland S. L. .....Smith
Campbell Frank D.....Var
Cherpiel Charles L.....Hware
Colon Russell F.....Gro & Meat
Day Bros.....Autos & W & R (Br of Edgerton)
Edgington Motor.....Gaso & Oil
Ellis Farm Equipment.....
Fetzer George H.....Bsmith
Gotshall Jared.....Rest
Gratz Pliny.....Floor & Feed Mchy (Br of Waterloo, Ind.)
Hollingshead Ethel P.....Mort
Keller William F.....Autos
Lash Matthew F.....Billds Rest & Lbr
Layman Guy H.....Gro & Meat
Leary Lawrence H.....Drugs
Miller Cassley.....Coal & Ice
Miller Paul E.....Feed
Neuhauser & Stauffer TN.....D G & Wwear
Smith Ralph E.....Ser Stn & Beer
Stantz Owen F.....Hatchery
Stauffer Amos M.....Ser Stn
Warner Herrie R.....Ser Stn
West Unity Lumber Co.....Bldg Supp & Lbr
West Unity Poultry & Egg Co.....
West Unity Reporter.....Pubr & Prtgpr
West Unity Woolen Mills.....Mfg Wool Bats & Blankets
Williams County Farm Bureau Cooperative Assn.....
(Br of Montpelier)
Yager Grain & Fuel Co., Inc.....Grain Feed & Coal
Zigler & Allen.....G S

WESTVIEW (See Olmstead Falls)

WESTVILLE—100—Champaign (28)
Bk town Urbana
Ferst William P.....G S
Humphrey Robert.....Rest & Billds
Knotts J. E.....Fill Stn & Confec
Smith Oliver Farm Equipment.....

WHIPPLE—221—Washington (16)
Bk town Marietta
Erb Homer H.....Bvr & Rest
Hendershot C. W. NR.....G S
Kuhlman John J.....Floor & Feed
Lamp W. M. NR.....Gro & Fill Stn
Scaggs George W.....G S
Wagner Leroy O.....G S
Warren Bros.....W & R Meat (Also Marietta)
Warren & Miracle.....Ser Stn

WHISLER—10—Pickaway (26)
(R D from Kingston)
Bk town Circleville
Hamilton Simon.....G S

WHITE COTTAGE—475—Muskingum (26)
Bk town Zanesville
Cooper Bartley C.....Fill Stn & Rep
Fink John W.....Trucking
Jenkins Charles E.....Gar & Welding
Krofft & Allen.....Ser Stn & Confec
McCammon Floyd H.....G S
Thompson William & Son.....Mort
Williams Armour.....Gro & Rest

WHITEFORD ROAD—100—Lucas (49)
(R D from Toledo)
Bk town Toledo
Lay Earl B.....Gro & Fill Stn

WHITE OAK—25—Brown (7)
(R D from Mount Orab)
Bk town Mount Orab
Knott Ed.....G S

WHITE OAK—100—Hamilton (7)
Bk town Cheviot
Ace Radiator Shield Co.....Mfg
White Oak Products Co., Ni.....Mfg Bleaching Products

WHITE SULPHUR—50—Delaware (26)
(R D from Ostrander)
Bk town Delaware
France Quarries Co. (Inc.).....Mfg (Br of Toledo) Crushed Limestone

WHITMAN—713—Lucas (16)
WHITMAN STATE SAV. BK.....$50M
Carl De Bolfia, Pr. Ralph H. Shirey, Cas.

Allen H. W.....Gro
Bauman Herbert & Norman...Ser Stn
Bucher & Studer ..Lbr & Mill
Also Grand Rapids
Dehner Charles
Disher Vic
Doren W
Harper
Hoh
Hoh
Kel

Co.....
H. & Son TN.....Furn & M
(Also Waterville)
Sullivan Robert A.....Farm Implts
Tilton David & Son.....Hware & Implts
Townsend Courtney M.....Drugs
(Also Deerfield, Mich.)
Universal Grain & Supply Co., Inc.....F 3
(Br of Philadelphia, Pa.)
Whitman Hardware.....F 3½
Winslow Harry.....Distributing Gaso & Ser Stn F 3

WHITEVILLE—20—Fulton (49)
(R D from Metamora)
Bk town Lyons
Glinka Raymond W.....Gro & Meat
Steuw Alfonso.....Grain & Coal

—Ashtabula (12)
Williamsfield)

Capozzi Anthony.....Shoes & Rep
Carney Esther Sanger (Mrs. W. C.) Nov & Gifts
Chrastoff Mike.....
Clark Mrs. Leo R1...Fill Stn & Gro
Corbin Jesse R.....Ser Stn
Costeinis Pauline N. (Mrs. Nick) Rest & Liq
Duff Roy A., Jr.....Shoes
E. & W. Pastry Shop.....
Eberhardt Bert R1.....Lunch & Liq
Evans Glen R.....Rest
Everhardt B. J. R2.....Rest & Liq
Felchtner Store, Inc.....Meas Furng
Fink R. F. Co. (Inc.).....Furn & Mort
Foster Geo. O .....Gro & Meat
Fries Wm. P.....Cigars
Frye Earl S.....Petr & Pubg
Gardner Wm. Ewart Confec & News
Garing Chas. H.....Fill Stn & Lunch
Gordon, Dorothy L. (Mrs. J. T.) Confec
Gre enwich Mill & Elevator Co. (Br of Greenwich) .....Grain & Coal
Guthrie Emmett Leroy .....Autos
Hamdel Ernest C. R2.....Gro
Harsse ng Mrs. Grace TN.....Greenhouse
Hatch Estella M. (Mrs. R. B.) (Br of Plymouth) .....Wwear
Heck Thos. Hall Jr.....Dry Cl & Prss
Hessler Fred H. NR.....Grain Elev Farm Implts Farming Coal & Trkg
Hunter Gilbert L.....Appl & Picture Framing
Horvath Miss Rose .....Rest
Jackson Jeannette C. (Mrs. E. W.) Drugs
Jump Maxwell A.....Meats (Also Plymouth)
Jump Robert S.....Var
Landefeld Bros. TN.....Gar
Landefeld Emil A.....Autos & Boating
Landefeld & Lowery.....Meat
Lish Walter C.....
McCarty Garland H.....Rest
McMorris Geo. & Son Plbg & Htg
Mandel Louis.....Junk Yard
Martin Paul R.....Gro
Miller & Dustine.....Plbg & Htg
Mitchell Frank E...Elec Contr & Appl
Modern Cleaning Co. NI.....Dry Clg
Moles Clarence K.....Laundry
Moll Nick R2.....
Ny John H.....R R Rest
Swanson (Mrs.) .....Hware Plbg & Htg
Stoyanoff.....Groc
Rubber Sur-Custom Work

.....Gro
.....Mfg
Meat
Son
Rest
Stn
Coal
Stn
Rest
Lbr
Mill
Lbr
Rest
Lbr
Mill
Lbr
Rest
Lbr
Mill
Lbr

WHITMAN HARDWARE
SAMUELS, DAVID A.
AGE 55, MARRIED, OWNER
CD 354 4 APRIL 15, 1946

WHITMAN, PA.
BUCKS COUNTY
5-9 S. WHITMAN AVE.

HISTORY

The style was registered by David A. Samuels on June 1, 1934.

Samuels was born in Scranton and was first employed there as a clerk. In 1922, he bought this store for $5,000, partly with borrowed funds which were repaid in three years. Samuels moved to the present larger quarters in 1935, and found it necessary to buy the property in 1945.

METHOD OF OPERATION—FIRE HAZARD

Retails hardware, house furnishings, paint, and a new line of glass and chinaware gifts. Seventy per cent of sales are for cash and the remainder are on terms of 30 and 60 days granted to 55 accounts, mostly tradesmen and mechanics. There are two employees, one a boy who comes in after school. The stone and stucco building occupied is located on the main street of the town. OWNS this two-story building and one-story annex, adjoined on one side by a beauty parlor, on the other by a bank. The upper floor is leased as an apartment. The building is in excellent condition, although the store has a somewhat crowded appearance.

FIRE RECORD: No fires reported.

STATEMENT

	Dec. 31, 1943	Dec. 31, 1944	Dec. 31, 1945
Current Assets	$16,492	$17,164	$17,328
Current Liabilities	2,564	2,103	9,814
Net Working Capital	13,928	15,061	7,514
Other Assets	1,490	1,760	20,207
Tangible Net Worth	15,418	16,821	19,621
NET SALES	38,628	44,110	58,492

From Inventory of December 31, 1945:

ASSETS		LIABILITIES	
Cash (Petty)	$ 60.00	Accounts Payable	$ 8,490.41
Cash in bank	918.18	Accrued Taxes	423.70
Accounts Receivable	2,642.21	Mortgages (due in one year)	900.00
Merchandise	13,708.12		
Total Current	17,328.51	Total Current	9,814.11
Fixtures & Equipment	1,670.38	Mortgages (due after one year)	8,100.00
Real Estate (5-9 S. Whitman)	18,000.00	NET WORTH	19,621.47
Truck	450.00		
Prepaid Insurance	86.69		
Total Assets	37,535.58	Total	37,535.58

For the year ending December 31, 1945 the gross profit was $13,462. After expenses (including $3,500 drawings of the owner) a net profit of $2,800 was earned, all retained in the business.

Fire insurance on building $18,000; on merchandise $9,500; on fixtures and equipment $1,000. No contingent liabilities; no receivables pledged or discounted.

(Signed) January 25, 1946 WHITMAN HARDWARE
(by) David A. Samuels.

(CONTINUED)

FIG. 2a. A Typical Dun & Bradstreet, Inc. Credit Report

WHITMAN HARDWARE

CD 354 4 APRIL 15, 1946

WHITMAN, PA.
BUCKS COUNTY
(PAGE #2)

STATEMENT (CONT'D)

Before the War, Samuels carried a heavy and slow-moving stock. He was occasionally slow in paying bills, but never owed much and merchandise suppliers considered his store a satisfactory outlet. With the War, Samuels cleaned out many old items, and from a pre-war value of about $25,000 sales have climbed to $58,000 for 1945.

In November, 1945 the real estate here was offered for sale, and because there was no other place to move, Samuels bought the place for $18,000, which he admits is higher than the property was valued before the War. He paid $9,000 cash and financed the remainder of the purchase price with a 10-year 5% mortgage held by a large insurance company. The mortgage is payable $450 semi-annually, starting June 1, 1946. The net result of this transaction is a reversal in the former improving trend. Working capital is down to $7,514 from $15,061, and debt has increased. During the past two months the owner has had to take extra time in some payments.

Principal suppliers who have been selling the account for years say they are quite willing to grant the extra time. Samuels has not asked his bank for a loan, but is trying to put over the real estate deal with no borrowed money, other than the mortgage. He points out that his store operations continue to be profitable and that he is now getting $48 a month for the upstairs apartment which helps carry the real estate. The bank reports satisfactory relations over a ten-year period and no requests for loans have been made.

TRADE REPORTS
(Apr. 1, 1946)

HC	OWE	P. DUE	TERMS	PAYMENTS	REMARKS
951	0	0	2-10-30	Disc	Sold yrs to Nov. 1945
100	—	—	2-10-30	Disc	Sold yrs
75	—	—		Disc	Sold to Dec. 1945
658	420	0	2-10-60	Prompt to Disc	Discounted until recently
1600	325	0	1-10-30	Prompt	Sold to Feb. 1946
332	200	0	1-10-30	Prompt	
150	150	0	30	Prompt	Good account
100	80	—		Prompt	Sold since 1940
100	0	0	1-10-30	Prompt	Sold to Nov. 1945
2816	2816	841	Spec.	Slow 30 to Prompt	Little slow now but satisfactory
1500	1170	1170	2-10-30	Slow 30	But satis. old account
1000	900	900	—	Slow	Asks extra time

SUMMARY

Steady but gradual financial progress has been made since Samuels started here in 1922. The recent purchase of the business real estate, however, has absorbed working capital in the face of rising sales, and payments to some principal suppliers are slower.

4-15-46 (7) F 3 1/2

FIG. 2b. A Typical Dun & Bradstreet, Inc. Credit Report (continued)

and commercial banks are concerned primarily with liquidity and ability to pay debts within the early future. Yet, with few exceptions, the same balance sheet and income statement are presented for all these purposes. This has caused many students of the subject to suggest the preparation of separate or **single-purpose statements** in such form and detail as will best serve the primary interests of each of the three groups specified. This thought was best expressed by Jerome N. Frank when he was chairman of the S.E.C. in an address entitled "Accounting for Investors," in which he said:

> It may very well be . . . that the present balance-sheet which attempts on two pages, with some accompanying explanatory notes or tables, to describe a vast business enterprise, cannot at the same time meet all of the varied demands made upon modern accountancy. It is possible that our all-purpose balance-sheet cannot faithfully serve all of its many masters—the divergent and sometimes conflicting interests of creditors, stockholders, management, tax collectors, the regulatory agencies. Would it not be feasible to construct "single purpose" balance-sheets and possibly income statements which would reflect the enterprise in the terms and categories which would best serve particular purposes and then in a separate column make the necessary reconciliation between the various statements? Or, the all-purpose historical balance-sheet might be made more meaningful to the investor by supplementing it with a special-purpose financial statement designed to serve the particular interests of the investor. For although educated prophecy needs sound history, it needs more than that—it needs history presented and explained in the light of the specific prediction that must be made.

Norman J. Lenhart (Single Purpose Statements, Jour. Acctcy., vol. 69) took the view that there is no "substantial difference in the form of financial statements which will best serve stockholders, investors and credit grantors." He pointed out that the additional information which credit grantors desire usually is not of a character which could be presented in financial statements. As to management, he contended, its purposes would be served if the all-purpose financial report were supported by detailed statements showing income and expense by departments and operating units, together with comparative data of budget estimates and actual cost.

Edward B. Wilcox, in the same article, argued for a better understanding and appreciation of the so-called all-purpose financial statements before they are abandoned. "How to prepare and differentiate single-purpose statements," he said, "will call for much study and research, and it is not possible at the outset to foresee results clearly." He cautioned against possible misuse of single-purpose statements for unintended purposes and the resulting danger of increasing confusion and misunderstanding, unless some generally accepted standard label is adopted for them and their preparation is limited to independent certified public accountants. Victor Z. Brink (The Need for Single-Purpose Statements, Jour. Acctcy., vol. 69) expressed the conviction that "the preparation of one set of financial statements is too deep-rooted a practice to be easily overthrown and will undoubtedly be continued for many years to come. The realities of the situation thus indicate that the more immediate progress must be worked out through the medium of the single set of financial statements."

It has been suggested that financial statements be prepared in such form and detail as will reveal to the statement analyst all essential

financial and operating data ordinarily required to form an intelligent judgment of the condition of the business, whether it be for investment, credit or management purposes. Along these lines, James C. Bonbright (The Valuation of Property) offers the following suggestion:

> Further research would consider the question whether a workable multiple-purpose scheme of accounts might not be so devised that, by the aid of a pencil and paper, a reader could reconstruct the accounts to fit his own requirements. (For example, such a multiple-purpose balance sheet might report a valuation of current assets the lower of "cost or market," but with a footnote indicating the cost on one hand and the current market price on the other hand.)

This procedure has been favored by the Securities and Exchange Commission (particularly in Regulation SX).

INVESTMENT ANALYSIS.—The primary objective of most investment analysis is to appraise prospective earning power. Broadly speaking, an analysis to determine bond quality takes into consideration (1) earning power, (2) working capital position, and (3) property protection. But, "no matter how much property there is behind an issue, no matter how adequate financial resources may be at the time, it is the earning power of the enterprise which measures the obligor's ability to accumulate funds to pay principal and interest; or, if refunding is necessary at maturity or previously advantageous, it is the principal measure of the ability of the company to sell a new issue." (Riggs, in Corporate Financial Statements. Accounting Institute Proceedings, 1940.) In appraising earning power, emphasis is placed upon the trend of near and long-term earnings, which in turn calls for consideration of conditions and prospects in the industry, caliber of management and other related factors. Working capital position, although given second place, is highly important as a measure of solvency. It indicates the ability of a company to meet debt maturities problems in times of reduced earnings, and to finance improvements and expanding business without heavy borrowing. Property protection is important chiefly as an indication of relative treatment in the event of reorganization.

In the analysis of common stocks, earnings are of even more crucial importance, since they belong in toto to the shareholders. But reported earnings can only be interpreted intelligently in the light of accounting policies pursued, particularly as regards such matters as nonrecurring profits and losses, depreciation and depletion, reserves for contingencies, inventory valuations, etc. Accounting conventions may present a picture that could be misleading to the unwary investment analyst.

CREDIT ANALYSIS.—Credit men and commercial bankers are primarily concerned with liquidity and a borrower's ability to meet his short-term obligations. The ratio of current assets to current liabilities and the adequacy of working capital are most carefully scrutinized, therefore. Balance sheet analysis tends to take precedence over the income statement. A spokesman for national credit agencies has said: "A proper understanding and appreciation by the accountant of the problems confronting the credit grantor places an additional responsibility upon the accountant in preparing financial statements in a manner which clearly, comprehensively, and correctly values the actual worth of

the individual items composing the assets of the client—not the book figures but the actual value." (Short-term Credit, Corporation Financial Statements, Accounting Institute Proceedings, 1940.) But the accounting profession does not subscribe to this view. Balance sheets prepared or certified by independent public accountants for credit purposes do not purport to reflect market values, but are presented as values in use or going concern values. Public accountants do not hold themselves out as appraisers of fixed asset or inventory values. However, agreement was reached between the National Credit Office and representatives of the New York State Society of Certified Public Accountants in 1937 that all assets and liabilities susceptible of verification by direct correspondence should be so verified by independent public accountants.

Fixed assets and noncurrent indebtedness are given less attention by the short-term credit grantor than by the long-term creditor, although that portion of the long-term debt which matures in the early future may profoundly affect the current position and should be included therein. Equally, the need for replacement of obsolete or fully depreciated machinery may drastically alter the current asset position of the company.

Until more recent years, the profit and loss statement was neither requested by, nor submitted to, the credit grantor. The balance sheet, reflecting the current position and net worth, was considered adequate. The depression following 1929, with its accompanying increase in business failures, demonstrated the need for analyzing operating statements of the borrower if the credit grantor was to judge risks intelligently. Since that time, the practice of securing the borrower's profit and loss statement has become general, for it has been found that lack of earning power may cause losses to creditors even where a strong working capital position exists, for liquid assets can be dissipated rapidly under such conditions. Conversely, large earnings may make the credit risk small where the current position is weak.

ANALYSIS FOR FINANCIAL MANAGEMENT.—Management seeks information that will promote efficiency and increase profits, and provide a basis for intelligent decisions in the conduct of the business. Balance sheet analysis helps to measure efficiency of utilization of fixed and working assets. The profit and loss statement, however, is most valuable for control purposes, indicating operating efficiency of the enterprise as a whole and individual departments, results of expansion, etc.

Analysis by comparisons is common procedure. Comparison of a company's financial statements with those of other companies in the same industry measures its relative efficiency. Comparisons of current monthly operating figures of a company with those of related months in previous accounting periods, and comparisons of the current annual report with previous annual reports, reveals sales, cost and profit trends.

Another form of analysis which is gaining wide acceptance is to be found in the form of a statement which presents details of operations in comparison with planned and budgeted figures. These analyses help management to enforce its policies, to locate strong and weak points in the operating organization and to maintain a running control over expenditures.

Analysis of Income Statements

ROLE OF CRITICAL ANALYSIS.—Because financial statements are not ordinarily prepared for special purposes such as investment analysis, and because there will necessarily be differences of opinion in appraising many items in the earnings statement and balance sheet, there is need for a critical analysis even of more complete and elaborate financial statements. The elements of opinion and accounting convention that enter into the preparation of financial statements make such critical analysis unavoidable by those who use them.

INCOME DISTORTIONS.—Reported earnings can be distorted through (1) overstatement or understatement of major items of income or expense; (2) the amount of reserves set aside for depreciation, depletion, and contingencies; and (3) treatment of nonrecurring and nonoperating profits and losses. The analyst's task is greatly complicated by lack of sufficient detail and clarity in the data presented.

Profit and loss statements may be prepared either on a cash or accrual basis. The **cash basis** reflects only income and expenditures resulting from actual cash receipts and cash disbursements. Such a statement ordinarily is known as a statement of cash receipts and disbursements, and is not a true reflection of income earned and costs and expenses incurred during the period. Since more than 90% of all business in this country is conducted on a credit basis, a statement which portrays cash transactions only fails to reflect all of the transactions affecting profits and losses for the period under review. The **accrual basis** takes into account all transactions during the period under review, whether on a cash or credit basis. For example, on the accrual basis a $5,000 sale to a customer on December 15, 1950, delivered that date, payment to be received 60 days later, would be included in the profit and loss statement as part of gross income for 1950, notwithstanding the fact that the receipt of cash under the terms of sale would not occur until the following year. On the cash basis this amount would be excluded from 1950 income and included in 1951, when the cash is actually received. Unless it is specifically stated to the contrary, a profit and loss statement is presumed to have been prepared on the accrual basis.

When the company closes its books at the end of the year, there invariably exist certain unrecorded items of income and expenses. Unless these items are reflected in the accounts, profits for the current and subsequent years will be distorted. Such items include **accrued income and expense** and **deferred income and expense.** Omission of accrued income and deferred expense will understate current profits, whereas omission of accrued expenses and deferred income will overstate earnings.

ANALYSIS OF SALES OR REVENUES.—The first item on the profit and loss statement is usually sales or operating revenues. Where other sources than sales of merchandise are important, disclosure of the amount from each of these sources is essential to proper analysis of income. (10% or more of the combined total for either source is considered significant under Rule 5–03 of Regulation SX.) In the case of the International Business Machine Corp., the gross income from sales and rental revenue for the year ended December 31, 1949 was

shown in its profit and loss statement as follows:

Sales	$ 41,086,552.04
Services and Rentals	120,896,228.64
	$161,982,780.68

Approximately 25% of the gross revenue was from sales, and the balance of 75% from services rendered. Consistent with this breakdown of gross revenue, the cost of sales was shown separately from expenses applicable to tabulating machine service and rental revenue as follows:

Cost of Sales	$27,041,227.36
Cost of Services and Rentals	45,014,599.49
	$72,055,826.85

From the revised presentation the analyst is able to determine the rate of gross profit on sales of machines, as well as the ratio of operating costs to operating revenue.

Intercompany Sales.—It is a relatively simple matter for a corporation to manipulate net earnings by increasing or decreasing sales to majority-owned subsidiaries in amounts and at prices sufficient to produce the net profit desired. Since sales to outsiders include profits actually earned, whereas sales to affiliates include anticipated profits, a disclosure of the sales to each group is essential to a proper analysis, where the amounts involved are significant.

Instalment Sales and Deferred Income.—Several methods of taking up profits on instalment sales are generally recognized and have received substantial support. The two most commonly employed are (1) taking up total profits in the period of sale, and (2) taking up profits in proportion to payments received. The latter is the more conservative policy. As the uncertainty of collection without loss or large expense increases, the propriety of taking up profits immediately becomes more and more doubtful. And where total profit is taken up in the income account in the period in which the sale is made or contract entered into, good accounting practice dictates that ample provision be made for prospective collection losses.

The possibility of manipulating current earnings under these circumstances is quite obvious. In the case of the American Tung Grove Development, Inc. (8 S.E.C. 61), the registrant treated the total profit from sales contracts as realized at the time of signing the contracts, and included the total amount in current income, although payments were to be made over a period of 3 years. No reserves for doubtful accounts were set up. The Commission cited this method of presentation deficient with the following comment: "In any case, we find it misleading to employ the procedure used by the registrant without a full explanation of its character and effect." Similarly in the case of the American Rolling Mill Co. (Form A–2, File No. 2–3091), income from royalties received in 1936, which represented earnings for the 3 years 1937–1940, was included in its entirety in the profit and loss statement for 1936.

COST OF GOODS SOLD.—A reasonably detailed disclosure of the composition of cost of goods sold, including opening and closing inven-

tories, together with an explanation of basis used in inventory valuation, is essential to any revealing analysis of the operating results of a business enterprise. The Securities and Exchange Commission has considered this information of such importance to the investor that it has consistently disapproved requests of registered companies to keep confidential the composition of cost of sales, unless compelling reasons are presented to prove that such disclosure would adversely affect the company's financial and operating condition. (F. W. Woolworth Co. Form 10 registration statement.)

INVENTORY VALUATION.—The cost of goods sold is computed by deducting inventories at the close of the period from the total cost of merchandise available for sale. Hence, the method used to value inventories may profoundly affect the profits shown. The higher the closing inventory, the lower the cost of goods sold, and the larger the profits. Inventories may be valued at cost, the lower of cost or market or some other acceptable basis. In determining cost, the method employed might be average cost, first-in first-out, last-in first-out or some other recognized method. Under the circumstances, a disclosure of the basis used, together with a statement as to whether such basis is consistent with that of the preceding accounting period, is very important information for the analyst.

In the case of the Edward G. Budd Mfg. Co., the inventory of work in process was valued **"at or below cost"** in the amount of $1,534,938.78. Investigation disclosed that included in the inventory were contracts which, when completed, would on a conservative estimate result in a loss to the company of from $45,000 to $60,000. Actually part of the inventory was taken not "at or below cost" but rather at market value which was in excess of cost, thereby overstating profits to that extent.

Minimizing Effect of Price Changes.—Under the first-in first-out method of inventory valuation, a rise in prices tends to inflate profits, and a fall in prices to deflate them. Reserves against inventory fluctuations, and more recently the last-in first-out basis of valuation (lifo) have been used to minimize the effect of price fluctuations on profits.

In a period of fluctuating prices, reserves may be set up for inventory depreciation. Disposition of such reserves affects both cost of sales and net profit. However, the S.E.C. has looked critically upon the use of reserves to minimize the effect of price fluctuations upon earnings.

A case in point was the profit and loss statement filed with the Securities and Exchange Commission by Wilson & Co., Inc. (File 2–3090). The company had created a reserve for fluctuation in inventory valuation of $750,000, which had been charged against prior earnings. In 1936, this $750,000 was credited to the opening inventory to offset inventory losses sustained in that year. The cost of goods sold section in the profit and loss statement showed the following: opening inventory, $21,409,391.39; cost of goods sold, $193,276,251.78; and the resulting net profit for the year, $4,068,457.37. A footnote explaining the composition of the opening inventory stated: "The reserve of $750,000 deducted from inventories at October 27, 1934 and October 26, 1935 was used during 1936 to offset inventory losses sustained during that year." But this computation was cited deficient by the Securities and Exchange

Commission. In the amended report, the $750,000 reserve for fluctuations of inventory was closed out directly to the earned surplus account instead of to the opening inventory account, with the following results: the opening inventory was increased to $22,159,391.39, cost of goods sold to $194,026,251.78, and the net profit for the period was cut to $3,318,457.37, or $750,000 less than appeared in the profit and loss statement first prepared.

The effect of inventory fluctuations on profits can be minimized by consistent use of the last-in first-out basis of valuation. Then increases or decreases in prices during the accounting period have only limited effect upon profits reported.

Changes in Method of Pricing Inventory.—Changes in inventory pricing methods during the period of the report will distort comparisons, unless the explanation of the change enables the analyst to calculate its effect upon net profits in the separate accounting periods covered by the report. This was illustrated in the case of the Bargis Brothers Co. The income statement filed with the S.E.C. (Form A–2, File No. 2–2558) was for 3 years and 7 months ended July 31, 1936. On September 30, 1934, the company changed pricing methods of inventories of finished stock not under contract and the finished stock held for customers under contract. An explanation of this change was presented in the auditor's report, but nowhere was there disclosed the effect on reported net profits if the new pricing policy had been consistently maintained during the 3 years under review. On request from the Securities and Exchange Commission, the following information was submitted in the amended report:

> Had the above changes in method of pricing inventories been in effect during the year 1933 and the beginning of the year 1934, the net income for the years 1933 and 1934 as shown in the accompanying statement of profit and loss would have been increased by the amounts of $527.75 and $3,683.15, respectively.

Intercompany Profits on Inventory.—Profit on intercompany sales represent unrealized profits and ordinarily are eliminated in consolidated statements. However, the practice is not uniform. Failure to eliminate has the effect of overstating both inventory and net earnings. The American Can Co. and the American Tobacco Co. did not eliminate such intercompany profits, whereas the Eastman Kodak Co., during the same period, followed the policy of eliminating all intercompany profits on inventory.

EXPENSES SUBJECT TO MANAGERIAL DISCRETION.—There is room for particularly wide differences of opinion and practice in handling charges against income which are determined by management rather than by actual obligations incurred or cash expended. Included in this group are provision for depreciation, depletion, amortization, doubtful accounts, and notes receivable and contingencies. Also subject to a wide range of managerial discretion are maintenance and repairs, rents, royalties, management and service contract fees, reserves for taxes other than federal income and excess profits taxes, and bonuses to officers and directors based upon sales or net profit. The Securities and Exchange Commission considers the disclosure of these items of such major importance that the submission of schedule

XVI, entitled "Supplementary profit and loss information," which contains a listing of these items, is mandatory for all financial statements filed with the Commission.

Since the determination of amounts charged against income in any one operating period for such expenses rests with management, net income can obviously be manipulated to show a greater or lesser amount depending upon the objective sought. The analyst requires disclosure in the financial statements of pertinent information relating to these items, together with an explanation of the policy followed, if he is to be able to interpret the results.

DEPRECIATION POLICY.—Adequacy or inadequacy of depreciation allowances will be determined by obsolescence, technological and economic changes, variations in the price level, and other developments that are not foreseeable. Hence, the analyst must reach his own conclusion in each case.

How the S.E.C. has handled the problem was illustrated by the National Biscuit Co. case. In its profit and loss statement for the year ended December 31, 1935, the following explanation of the company's depreciation policy was submitted:

> The policy of the National Biscuit Company (registrant) with respect to depreciation has been to provide an allowance therefor, which has been credited directly to the asset account. For the year 1935, this allowance amounted to $2.343.591.60. The Company's policy with respect to charging of certain expenditures to repairs instead of to capital or depreciation reserve, is a conservative one.

The amount of depreciation claimed for tax purposes differed from that in the registration statement, and the company followed the policy of charging retirements directly to operations. At the Commission's request, the above note was amended by inclusion of the following:

> The amount claimed as a deduction for federal income tax purposes for 1935 was $2,336,462.55. In addition to allowance for depreciation referred to above, the company has charged direct to operations in 1935 retired plant items aggregating $158,218.38.

In the case of the H. A. Montgomery Co. (Form A–2, File No. 2578) the income statement filed covered the 3-year period 1933–1935 and the first 7 months of 1936. In explaining its depreciation policy, however, the company disclosed the rates applied during the seven months of 1936 only, as follows:

> The registrant has made provision for depreciation during the period at the following rates:

Classification	Average Annual Rate (approximate)
Buildings	3.1%
Machinery and Equipment	5.3%
Automobiles and Trucks	*
Furniture and Fixtures	4.6%

Investigation disclosed that the depreciation rates used in 1936 were the lowest that the company had ever employed. At the request of the Securities and Exchange Commission, the amended footnote disclosed the following information:

Classification	Average Annual Rates (approx.) Oct., 1924 to Dec. 31, 1932	1933	1934	1935	Seven Months
Buildings	7%	3.9%	3.9%	3.2%	3.1%
Machinery and Equipment	13%	7.5%	7.5%	5.2%	5.3%
Furniture and Fixtures	12%	8.5%	8.5%	4.6%	4.6%

In lieu of depreciation, Park & Tilford followed a policy of charging off directly against current operations expenditures made during the year for fixed assets. In its annual report for December 31, 1935, the item of fixtures, machinery, and equipment was carried on the balance sheet at a nominal value of $1 and the profit and loss statement contained the following item:

Fixtures, Machinery and Equipment Expenditures during year —charged off $5,825.15

Neither the profit and loss statement nor the balance sheet contained any mention of the depreciation policy followed. At the request of the Securities and Exchange Commission, the following disclosure was presented in the amended profit and loss statement:

The Company has, for a number of years past, pursued the policy of charging off against current operations the expenditures made during the year on fixtures, machinery and equipment, in lieu of charging depreciation on these assets. The amount of such expenditures charged to profit and loss for the year ended December 31, 1934 was $56,580.65. The amount of depreciation claimed for income tax purposes in respect of fixtures, machinery and equipment for the year ended December 31, 1934, was $73,047.99.

The case of the American Can Co. was somewhat different. This company followed the policy of setting aside a specific amount periodically for depreciation which it credited directly to the fixed asset account. In addition, expenditures for furniture, fixtures, patents, and certain other capital assets were charged directly to current operations. The following explanation of its depreciation policy was presented in its 10–K report dated December 31, 1935:

The policy of the companies respecting depreciation has been to provide a specific allowance therefor which has been credited directly to the asset account. For the year 1935, this allowance amounted to $200,000. In addition, expenditures for furniture, fixtures, patents and certain other capital assets are charged to expense as incurred.

This explanation failed to disclose the amount expended for fixed assets and charged to current operations. To correct this omission, the following sentence was added in the amended report:

It is not possible without unreasonable effort and expense to determine the precise amount of such expenditures, but it is estimated that the amount for the year 1935 was $2,400.00.

Depreciation on Appreciation and Losses on Retirement of Property.—The American Rolling Mill Co. charged directly to paid-in surplus the depreciation on property appreciation, although the surplus created through appreciation was used to pay stock dividends. During the same period, the company charged to earned surplus losses on retire-

ment of property. In their certificate, the independent accountants expressed it as their opinion that: "such charges would more properly have been charged against current income." Failure to follow the accounting practices recommended by independent public accountants resulted in an overstatement of net income of $408,000 in 1934, $404,000 in 1935 and $375,000 in 1936.

DEPLETION.—Ordinarily, depletion of wasting assets is included in the profit and loss statement either as an expense or an item of cost, and deducted from income before arriving at net profit. A number of mining and oil companies do not capitalize development expenses of ore or oil properties, however, but charge them off currently as they are incurred. The policy adopted, and the basis of depletion charges where this method is used, greatly affects reported earnings. The Anaconda Copper Mining Co. (Form A–2, File No. 1669–1–2) charged depletion on timber, coal, clay, and phosphate lands against income accounts, but no amount was deducted for depletion of metal mines. In the case of the Phelps Dodge Corp. (Form A–2, File No. 2–3150) depletion on metal and coal mines was charged directly to the surplus account instead of the income account.

COMPENSATION OF OFFICERS.—Compensation for services, if in a form other than cash, can be so reflected in the accounts as either to overstate or understate the expense therefor, with its corresponding effect on current earnings. A case in point is that of the Interstate Department Store (Form A–2, No. 2–3080).

The footnote to the profit and loss statement first filed with the S.E.C. merely disclosed that for the years ended January 31, 1935–1937 there had been distributed to officers 3160, 2830 and 6442 shares of common treasury stock respectively as additional compensation, and that this stock was charged to the profit and loss account at $5 per share, the value carried on the books. Additional amendments requested by the Commission disclosed the following: (1) that treasury stock has been acquired by the corporation at an average of $20.60 per share; (2) that on January 31, 1933 the treasury stock was written down to $5 per share by a charge to earned surplus; (3) that if the treasury common stock distributed as compensation had been charged to the profit and loss account at the original average cost of $20.62 instead of $5, the operating expenses for the period would have been increased and the net profit decreased by approximately $200,000.

CHARGES TO SURPLUS INSTEAD OF CURRENT INCOME.—Many larger corporations in the 30's wrote down the value of their fixed assets by charges against capital or paid-in surplus. By decreasing the book value of fixed assets, depreciation charges for subsequent periods were automatically reduced. Similarly, some concerns created reserves out of surplus for the full amount of unamortized bond discount, estimated future pensions payable or unamortized improvements to leaseholds. In other cases, note and bond discount expense, development expenses, and scrapped and demolished equipment were charged directly to capital surplus.

The practical effect of each of these practices is twofold: (1) expenses and losses are not charged to current operations, thereby understating the operating costs and overstating the net profit of later accounting

periods; and (2) earned surplus is overstated and capital surplus understated.

Financial statements of Butler Bros. for the 3 years and 6 months ended June 30, 1936 (Form A–2, File No. 2–2586) illustrated this practice and its effect on earnings. As at December 31, 1932, the following reserves were created out of paid-in surplus:

1. A reserve for the entire balance of bond discount and expense still unamortized at December 31, 1932.
2. A reserve to provide for estimated future payments to pensioners on the pension list at December 31, 1932 and those to be added thereto up to January 1, 1936, at which time the Pension Plan was to be discontinued, by Resolution of the Board of Directors adopted January 29, 1925.
3. Reserves for revaluation of furniture, fixtures, equipment, etc. to reduce the cost at which such assets were carried on the books to an amount which represented management's opinion of the approximate replacement value at December 31, 1932.

During the period covered by this report, the following charges were made to these reserves instead of to current income, thereby understating current operating expenses and overstating the net earnings in the amounts indicated:

	1933	1934	1935	Six Months Ended June 30, 1936
Amortization of debt discount and expense based upon amount of debentures outstanding	$81,916	$75,817	$69,681	$31,862
Payment to pensioners in excess of current provisions from income	21,064	29,188	34,432	25,170
Amortization of improvements to leased premises	23,295	20,529	16,450	6,999
Portion of Depreciation on furniture and fixtures, equipment, etc., charged against reserve for revaluation thereof	43,336	43,038	42,884	21,251
	$169,611	$168,072	$163,447	$85,282

In the case of the Alleghany Corp. [6 S.E.C. 960 (1940)] the Commission, after investigation, found that the company in its financial statements for the period 1929 through 1938 had overstated net earnings by more than $50,000,000, through the device of charging directly to paid-in surplus losses which should have been charged to profit and loss. These included (a) bond discount and expense, (b) losses on sale of investments, and (c) loss on contracts for sale of securities.

NONRECURRING ITEMS.—Net income consists of profits from ordinary operations of the business enterprise, plus or minus any nonoperating or nonrecurring profits or losses. The security analyst is interested in current net income, to be sure, but chiefly as an indication of prospective earnings. A future decline in income will reduce the value of a company's securities. Hence, the analyst wants to know (a) what part of this income represents the ordinary recurring profits for the year and what part represents nonrecurring profits or losses, (b) how

likely are nonrecurring items to recur in some future year, and (c) is treatment of nonrecurring items consistent.

Many published financial statements fail to disclose how much of the net income reported represents profits derived from nonrecurring sources. All income statements filed with the Securities and Exchange Commission are required to state separately under "Other Income" the amounts of income from dividends, interest on securities, profits on securities net of losses, and miscellaneous other income such as profits on sale of fixed assets. Under "Income Deductions," the following items are required to be listed separately: loss on sale of securities net of profits, debt discount expense, and miscellaneous income deductions. Compliance with these instructions compels the registrant to disclose the amounts and sources of nonoperating and nonrecurring income.

Balance Sheet Analysis

DEFINITION.—A balance sheet is a statement of assets, liabilities and capital at the close of business on the date indicated. The American Institute of Accountants defines a balance sheet as:

> A tabular statement or summary of balances (debit and credit) carried forward after an actual or constructive closing of books of account kept by double-entry methods, according to the rules or principles of accounting. The items reflected on the two sides of the balance sheet are commonly called assets and liabilities, respectively. (Committee on Terminology, Research Bulletin #9)

Assets represent all things owned by the business which have a money value. The American Institute of Accountants defines the term as:

> representing either a property right or value acquired, or an expenditure made which is properly applicable to the future. Thus, plant, accounts receivable, inventory and a deferred charge are all assets in balance-sheet classification.

Liabilities and capital represent the claims of the creditors and owners (stockholders) against these assets. Frequently, the term "liabilities" is used to include both creditors' and owners' claims. The American Institute of Accountants uses the term in that sense in its definition of liabilities:

> Thus the word is used broadly to comprise not only items which constitute liabilities in the popular sense of debts or obligations (including provision for those that are unascertained), but also credit balances to be accounted for which do not involve the debtor and creditor relation. For example, capital stock, deferred credits to income and surplus are balance-sheet liabilities in that they represent balances to be accounted for by the company; though these are not liabilities in the ordinary sense of debts owed to legal creditors.

Total assets, therefore, should always be equal to the total of the liabilities plus the capital. The balance sheet equation, simply stated, is Assets equals Liabilities plus Capital ($A = L + C$). Since the claims of creditors take precedence over those of owners or stockholders, the interest of the latter is arrived at by subtracting the liabilities from the assets. Another common way of stating the balance equation, therefore, is Assets minus Liabilities equals Capital ($A - L = C$).

Assets are usually classified as current, fixed or deferred. The Securities and Exchange Commission classification for commercial and industrial corporations includes the following more detailed classifications: Current Assets, Investments, Fixed Assets, Intangible Assets, Deferred Charges, and Other Assets. The classification of liabilities ordinarily is consistent with that of the assets. Frequently, liabilities and capital are shown under one major caption with appropriate classifications thereunder. The Securities and Exchange Commission follows this practice with the caption "Liabilities, Capital Shares and Surplus" supported by the following classifications: Current Liabilities, Deferred Income, Long-Term Debt, Other Liabilities, Reserves Not Shown Elsewhere, Capital Shares and Surplus.

The order in which the different classes of items in the balance sheet are listed will depend in great part upon the custom and practice in the industry. In the case of commercial and industrial enterprises, where the current assets represent the greater portion of the company's resources, items usually are listed in order of liquidity with current assets first, followed by fixed and deferred assets. The liabilities are listed in the same order for comparative purposes. In the case of railroads and public utilities, the greater portion of whose resources is invested in fixed property, the usual order is for the fixed assets to appear first, followed by current assets and deferred charges. For comparative purposes, the liability side usually presents capital stock, long-term debt, current liabilities, and deferred income, in the order mentioned. Whatever the order followed, the groupings on the liability side ordinarily are consistent with that on the asset side.

While uniform reporting has been prescribed for railroads and public utilities by federal and state regulatory bodies, no such uniformity exists for the preparation of financial statements for the thousands of industrial and commercial organizations engaged in varying types of businesses throughout the country. Recognizing the impracticability of prescribing any one standard form for the many diverse industries, and with a view towards having statements prepared in a manner which will most clearly reflect the financial condition and operating results of each enterprise, the S.E.C. allows a company wide latitude in such matters, as is evidenced by Rule 3-01 (a) of Regulation SX:

> Financial statements may be filed in such form and order, and may use such generally accepted terminology, as will best indicate their significance and character in the light of the provisions applicable thereto.

Analysis of the balance sheet seeks to determine (1) whether all asset, liability, and net worth items have been included, (2) whether these items have been properly valued, and (3) whether they have been properly classified. The omission of any items or their improper valuation will have the effect of overstating or understating net worth, while improper classification may distort comparisons and give a misleading picture of the liquidity of the enterprise. A critical appraisal of the classification and disposition of more important balance sheet items for analysis purposes follows.

CURRENT ASSETS.—The Securities and Exchange Commission defines current assets as follows: (Rule 3-13 Regulation SX)

> Items classed as current assets shall be generally realizable within one year. However, generally recognized trade practices may be followed with

respect to items such as installment receivables or inventories long in process, provided an appropriate explanation of the circumstances is made, and, if practicable, an estimate given of the amount not realizable within one year.

'Included are such items as cash, marketable securities, notes and accounts receivable from trade customers, inventories of merchandise, such accounts and notes receivable from directors, officers, parents, and subsidiaries as fall due within one year as well as prepaid expenses (A.R.B. #30).

Cash and Cash Items.—Cash on hand, demand deposits, and time deposits ordinarily are included under this caption. The inclusion of funds other than those freely available for withdrawal to meet ordinary current obligations results in an overstatement of both the working capital and current ratio position of the company. Such noncurrent funds include deposits in foreign banks the withdrawal of which is subject to government restrictions and regulations, funds earmarked for retirement of preferred stock, pension funds, sinking funds, etc.

Marketable Securities.—Ordinarily all securities which have a ready market and have been acquired for temporary investment only, except those acquired for purposes of control, are included under this caption. Securities of affiliates, even though of a marketable nature, may not be included under this caption in statements filed with the Securities and Exchange Commission. In the case of the Allied Chemical and Dye Corp., the consolidated balance sheet filed at registration showed the following items under the classification "Investments":

Sundry Investments (including securities of affiliates $3,474,866.10) at cost or less	$12,850,213.52
Marketable Securities at cost (market value $31,827,278)	39,115,535.48

On examination, it was discovered that marketable securities at cost amounted to but $22,839,350, and other investments $25,651,532.90. At the Commission's request that these items be properly classified, the company restated its balance sheet as follows:

INVESTMENTS	
Securities of Affiliates (Schedule 1)	$ 3,474,866.10
Other Security Investments at cost or less	25,651,532.90
CURRENT ASSETS	
Marketable Securities at cost (market value $17,861,000)	22,839,350.00

The basis used in arriving at the value of marketable securities may be cost, book value, market value, or some arbitrary amount fixed by management which, in certain instances, has been substantially in excess of current realizable values. This was so in the case of the American Auto Gyro Co. [1 S.E.C. 83]. The balance sheet submitted contained the item "Marketable Securities—$10.000." Investigation disclosed (1) that this amount represented 4.000.000 shares of common stock of one of its subsidiaries, which stock had been accepted in cancellation of $10,000 due from this subsidiary company for money advanced to it over a period of 3 years; and (2) that at the time this item was included in the balance sheet the subsidiary was insolvent.

Notes and Accounts Receivable (Trade).—These receivables represent amounts due from trade customers within the period of one year or less on notes and open accounts known to be collectible. Failure to

exclude bad debts and provide an adequate reserve for doubtful accounts and notes receivable results in an overstatement of both assets and current earnings. In 1935, the Texas Gulf Sulphur Co. made no specific provision for possible losses on accounts and notes receivable but charged off such losses, as they were incurred, not to income but to a catch-all reserve for contingencies.

Notes receivable discounted or transferred represent a contingent liability until honored by the maker at date of maturity. Since the indorser is liable in case the maker refuses payment at maturity, disclosure of this information is essential to a fair appraisal of the current position of the company and its ability to pay short-term debts, including those of a contingent nature. Of equal importance to the analyst is the disclosure of the amount of receivables hypothecated or pledged as collateral. In the case of the Mutual Industrial Bankers, Inc. [1 S.E.C. 268], the company's balance sheet failed to disclose that $42,000 of loan balances receivable, which constituted 80% of the assets of the company, were pledged to the Morris Plan Bank of Virginia as security for a $21,000 loan.

Notes and Accounts Receivable from Officers and Affiliates.—A study by the S.E.C. disclosed that while substantial amounts due from officers and directors were shown separately in balance sheets filed with the Commission, such amounts were included in several cases without disclosure under the caption "Accounts and notes receivable, less reserve," in annual reports to stockholders. In its Accounting Series Release No. 27, the Securities and Exchange Commission strongly disapproved of this practice and placed upon the certifying accountants the responsibility for disclosing this information in published reports in these words:

> Where an indebtedness results from a transaction between the company and one or more of the management, as individuals, the certifying accountants should employ every means at their disposal to insist upon full disclosure by the company and, failing persuasion of the company, should as a minimum qualify their certificate or disclose therein the information not set forth in the statements.

Inventories.—Inventories may be distorted through (1) the valuation basis used, (2) failure to eliminate intercompany profits and losses, (3) application of valuation reserves, (4) inclusion of merchandise in transit to which title has not yet passed, and (5) inclusion of consigned merchandise. Some of these problems have been discussed in connection with Income Statement Analysis.

Investments—Securities of Affiliates and Indebtedness of Affiliates Not Current.—Some statements list these two items separately, while others will show them in one combined amount. The S.E.C. prescribes separate listing. Where the parent company controls the policies of its subsidiaries, the possibilities for overstating the values of these items in the balance sheet are numerous. A few cases will illustrate this.

Where investment in unconsolidated subsidiaries is carried at cost, failure to reflect the parent's proportionate share of later losses in the consolidated balance sheet will result in an overstatement of assets and surplus. The consolidated balance sheet of A. Hollander & Sons, Inc. filed with the S.E.C. (Form A-2, File No. 2-2604) showed the following:

Investment in and Advances to A. Hollander & Sons, Paris, France (87½% controlled subsidiary) $529,975.96

NOTE A

This consolidated balance sheet includes all 100% owned Subsidiary corporations of A. Hollander & Sons, Inc. but does not include the figure of A. Hollander & Sons, Paris, France, which is controlled through 87½% ownership.

Examination disclosed that (1) the above amount included investments at a cost of $107,200.96 and Loans and Advances of $422,775; (2) this unconsolidated subsidiary had a surplus deficit of $206,457.17 as a result of an excess of losses over profits from date of acquisition by the parent to balance sheet date; and (3) the parent company's 87½% interest in this deficit amounted to $180,650.02. Recognition of the loss by the parent would have reduced the item of Investments from $107,200.96 to zero and reduced the realizable value of the Advance by $73,449.06.

F. W. Woolworth Co. (New York) overstated the amount due from affiliates by approximately $1,000,000 through taking up in its account the depreciation reserve applicable to the properties of one of its subsidiaries, the Pennsylvania Corp. This was accomplished in the accounts of the parent by a charge to "Indebtedness of Affiliates—Not Current" and a credit to "Reserve for Depreciation." Amended statements correcting these items were required by the S.E.C.

In the absence of full disclosure, the method followed by the parent in taking up into its investment account undistributed earnings of foreign subsidiaries may distort the valuation of its "Investment in Securities of Affiliate." The consolidated balance sheet of F. W. Woolworth Co. (New York) and domestic and Canadian subsidiaries of December 31, 1934, showed "Investments in Securities of Affiliate . . . $32,849,843.35" supported by the following explanatory footnote: "All changes in the registrant's equities in both consolidated and unconsolidated subsidiaries have been reflected on the registrant's books." What the statements failed to disclose, and what the analyst was vitally interested in knowing, was: (a) that of this amount approximately $30,000,000, or 94% of the total, represented undistributed earnings of foreign subsidiaries in both Great Britain and Germany; (b) that of this latter amount some $26,000,000 applied to the British subsidiaries and $4,000,000 to the German; (c) that these amounts were not available to the parent unless and until declared as dividends by the respective companies; (d) that in the case of the German subsidiaries, due to the foreign exchange control in that country at the time, there were rigid limitations upon the ability of the subsidiaries to pay dividends to foreign stockholders; and (e) that in the case of the British companies, although the parent owned more than 50% of the ordinary shares of these subsidiaries, it did not have the power, under British law, to initiate the declaration of dividends. At the request of the Securities and Exchange Commission, a full explanation was included in amended statements.

PROPERTY, LAND, AND EQUIPMENT.—Tangible fixed property may be carried at book value, equal to cost less depreciation reserve, appraisal value, replacement value or some other recognized and acceptable basis. Since the contribution of an asset to the earning power of a business will vary from year to year, as well as over a period

of years, the value of this type of asset to the enterprise cannot be reflected precisely on the balance sheet. The analyst starts with the balance sheet valuation and adjusts it to suit his particular purpose, such as estimating resale value of property pledged to secure a bond issue, or future fixed capital outlays to provide added capacity.

A disclosure of the basis of valuation is essential for analysis, whatever its purpose. In the case of the Brandy-Wine Co. (1 S.E.C. '08) the balance sheet first filed showed property in the amount of $100,000. Examination disclosed that the property was acquired by one of the promoters for $29,000 and immediately turned over to the corporation for $100,000. The $71,000 difference included in the property account actually represented promotional expenses. In the case of the La Luz Mining Corp. (1 S.E.C. 217) the property was shown at $7,000,000. Actually it was discovered that but $1,428,000 in stock was paid for the property and the balance credited to capital surplus. This amount was arrived at by an engineer's estimate of the tonnage recoverable over the succeeding 17 years, based on the company's production plans. Instead of taking present value of such output as a basis in valuing property for balance sheet purposes, the company multiplied total estimated output of 700,000 tons by $10 per ton and arrived at the final value of $7,000,000. Assuming the engineer's basic computations to be correct, the asset was overvalued by at least the difference between the present and final value of the estimated output.

The property account can be distorted by including in it the value of leases or option agreements to acquire property. Thus, the Franco Mining Co. (1 S.E.C. 285) balance sheet included as part of fixed assets $15,000 paid for an option to purchase mining properties at an agreed price of $32,500, with the proviso that the amount paid for the option would be deducted from the purchase price when and if Franco exercised the option to purchase. The option agreement contained no commitment to complete the purchase.

Property acquired in an arm's-length transaction ordinarily is shown in the balance sheet at cost. In one registration statement filed with the S.E.C., the balance sheet showed property at $720,042.81 and the basis used as "sound value." But examination disclosed that the property had been acquired at a cost of only $200,000. This company was in its promotional stage, and in the appraisal report the terms "sound value" was qualified by the appraiser as being "the value for use by a going concern having prospects for profitable use, at normal bank capacity of the properties appraised." The company later amended its report by reducing the property account and surplus by the write-up of $520,042.81.

The problem is more serious where the transaction is not at arm's length. In the 1936 balance sheet of The Garford Corp., fixed assets "at appraised sound values" was shown at $285,630.50. It was subsequently discovered that this property was acquired from promoters, one of whom was president and a member of the board of directors at the time, and that the value placed on these properties was arbitrarily set by the board. The actual cost to the promoters of the assets sold to the corporation, including some merchandise and deferred items, was about $40,000 plus 5,000 shares of common stock of the buying corporation at $1 per share. In the amended statement the property account was reduced to $182,457.77, a difference of over $100,000, and surplus was reduced by a like amount.

Property valuations can be distorted through (1) excessive or inadequate reserves for depreciation; (2) failure to maintain a consistent depreciation policy; (3) charging to operations expenditures for property, equipment and major repairs which should be capitalized, etc. Such distortions affect not only the fixed property account but also the income account. But even where these practices are avoided, accounting for fixed assets is a conventional procedure that provides the raw material for analysis, rather than values that can be used literally for the particular purpose the analyst has in mind.

INTANGIBLE ASSETS.—Under this classification are included such items as patents, trade-marks, copyrights, franchises, good-will, and other intangibles. Such intangibles are shown in the balance sheet usually at arbitrary values established by management. For some analysis purposes, such as valuation of assets pledged for a bond issue, intangibles are deducted from net worth. Disclosure of the basis of valuation and amortization policy is vital information. The Tampax, Inc. (Form A–2, File No. 2–2498–1) balance sheet dated June 30, 1936 showed "Patents, trade marks and goodwill—$571,225.40." The basis used was not disclosed. Further examination revealed the following information: (1) four members of the board of directors were also promoters or representatives of promoters; (2) two of these board members also represented the vendors of the patents and trade-marks to the company; (3) the cost of such patents to the vendee group was less than one-tenth of the price at which they were sold to the company; (4) the value at which these intangibles were taken into the company accounts and shown on the balance sheet was determined by the board of directors; (5) the amounts so arrived at were arbitrary, not proven, not based on earnings, and did not express the opinion of competent independent appraisers.

As in the case of tangible fixed property, valuation of intangibles can be distorted by failure to provide adequate reserves for amortization and by overstatement or understatement of the periodic amortization charges.

DEFERRED CHARGES.—Included under this caption are such items as unamortized debt discounts and expenses, experiment costs, discounts and commissions on capital stock, and other deferred expenses. Ordinarily, these items are written off to current operations or amortized over a period of years. Failure to charge the consumed or expired portion of deferred items to operations results in an overstatement of both assets and net worth. In the case of the American Auto Gyro Co. (1 S.E.C. 83) the item of "Development of Inventions" was stated at $81,713.30. Examination disclosed that approximately $40,000 of the amount spent for development of the various inventions had proved to be worthless. When it has been definitely established that experiments pursued in the development of a particular invention have proved unsuccessful, such development costs should be written off as a loss.

CURRENT LIABILITIES.—The S.E.C. defines current liabilities as follows (Rule 3–14, Regulation SX):

> Items due and payable within one year shall in general be classed as current liabilities. However, generally recognized trade practices may be followed with respect to the exclusion of items such as customers' deposits

and deferred income, provided an appropriate explanation of the circumstances is made.

Accrued Liabilities.—Unrecorded expenses incurred at the close of the fiscal or calendar year are current liabilities. Such items as wages, salaries, taxes, and interest accrued are often omitted from balance sheets, either through oversight or intentionally. Failure to include them results in an understatement of liabilities and overstatement of both working capital and net worth. Dividends declared by the board of directors, payable on a given date, similarly represent a liability of the corporation and should be shown among current liabilities with the date of payment.

Instalment Amounts Due on Long-Term Debts.—Serial bonds, notes on mortgage instalments, mortgages, and other funded debts due and payable within one year are current liabilities. Segregation of these amounts from long-term debt is needed for determining the current ratio and working capital position of the company. Illustrative are the following methods of presentation:

NATIONAL TEA COMPANY

CURRENT LIABILITIES:	
Serial Notes Payable	$ 100,000
LONG-TERM NOTES PAYABLE:	
Serial Notes, unsecured, dated April 1, 1945, due $100,000 each on April 1 from 1949 to 1959 and $200,000 on April 1, 1960, interest rate 1¾% to 3%	$1,300,000

GENERAL MILLS, INC.

CURRENT LIABILITIES:	
Debenture sinking fund current instalment	$ 100,000
FUNDED DEBT:	
Ten-year 2½% sinking fund debentures, due January 1, 1954	$9,600,000
Less sinking fund instalment due January 1, 1949	100,000
	$9,500,000

DEFERRED INCOME.—This item represents monies received but not yet earned. Ordinarily, that portion of the income which has been earned is included in the profit and loss statement and the unearned portion is shown as an item of deferred income in the liability section of the balance sheet. Failure to set up the unearned portion as a liability results in an overstatement of income and an understatement of liabilities. American Rolling Mill (Form A–2, File No. 2–3091) included in its income statement for 1936 royalties of $420,000 received that year which represented minimum amounts accruing to the company from its licensees for the years 1937 to 1940 inclusive.

FUNDED DEBT.—Ordinarily, treasury bonds are deducted from bonds payable shown on the liability side of the balance sheet, the difference representing the amounts due on bonds outstanding. Frequently, however, bonds acquired by purchase in the bond market, say for pension funds, are listed among assets. Disclosure of the basis used in arriving at the value of these bonds held in a sinking fund is needed in such cases.

In financial statements filed with the S.E.C., three items of additional information are required which are of importance to the analyst:

1. Disclosure in the balance sheet or a footnote thereto of the amounts due on all long-term obligations, year by year, in the 5 years immediately following the date of the balance sheet. This information puts the reader on notice as to the amount of current funds which will have to be applied towards the liquidation of long-term debts in the 5 years immediately ahead. To that extent it helps to forecast more intelligently those factors which influence the company's working capital position in the foreseeable future.
2. A comprehensive supporting schedule in which is disclosed, among other things: name of each issuer and title of each issue; amount authorized in the indenture; amount issued and not retired or cancelled; amount in sinking fund and other special funds of the issuer; amounts pledged by the issuer; amounts held by parent or subsidiary companies.
3. A notation of facts about any default in principal, interest, sinking fund or redemption provisions with respect to any issue of securities.

CONTINGENT LIABILITIES.—Disclosure of contingent liabilities is essential in determining the prospective financial condition and current position of a company. Discovery of contingent liabilities not disclosed is usually quite difficult. Where such amounts are substantial, failure to give due consideration to them in any credit or investment analysis may well result in a distorted picture.

For failure to disclose in the balance sheet or profit and loss statement the fact that the company was contingently liable in lawsuits to which it was a defendant, both the balance sheet and profit and loss statement of Wilson & Co., Inc. (Form A–2, File No. 2–3090–1) were cited deficient by the Securities and Exchange Commission. As a result, the following note was made part of the amended balance sheet:

The Company is contingently liable for undetermined amounts on lawsuits and claims as described in answer to Item 40 of the Registration Statement. A return has been filed under the provisions for Tax on Unjust Enrichment of the Revenue Act of 1936 showing no tax to be due from the Company in respect of either 1935 or 1936 fiscal years and no specific reserve has been made therefor as in the opinion of the management there is no liability in this connection. In the opinion of the management the reserve for contingencies shown on the balance sheet is ample to cover all contingent liabilities of which they have knowledge.

Goldblatt Brothers (Form A–2, File No. 2–2700) had sold to its employees some part of its securities before registering them with the S.E.C. But the balance sheet failed to disclose the contingent liability resulting from the sale of these unregistered securities. To correct this deficiency, the following note was included in the amended balance sheet:

During the past three years the company sold certain shares of its common stock to employees without registration under the Securities Act of 1933. Such shares, in the opinion of the Securities and Exchange Commission, should have been registered. The company may be contingently liable in respect of such sales under Section 12(1) of the Securities Act of 1933 in the aggregate amount of approximately $153,000.

CAPITAL STOCK.—Where the capital stock of a corporation includes preferred stock, the latter's characteristics will largely affect both its position and that of the common. In listing preferred stock on the balance sheet, the following disclosure is required in all financial statements filed with the S.E.C. (Rule 3–19d, Regulation SX):

1. If callable, the date or dates and the amount per share and in total at which such shares are callable shall be stated.
2. Arrears in cumulative dividends per share and in total for each class of shares shall be stated.
3. Preferences on involuntary liquidation, if other than the par or stated value, shall be shown. When the excess involved is significant there shall be shown (i) the difference between the aggregate preference on involuntary liquidation and the aggregate par or stated value; (ii) a statement that this difference, plus any arrears in dividends, exceeds the sum of the par or stated value of the junior capital share and the surplus, if such is the case; and (iii) a statement as to the existence, or absence, of any restrictions upon surplus growing out of the fact that upon involuntary liquidation the preference of the preferred shares exceeds its par or stated value.

SURPLUS.—Generally speaking, surplus is of two major kinds, earned and capital. Earned surplus arises out of undistributed earnings, and is defined by the Committee on Terminology of the American Institute of Accountants as follows:

> The balance of net profits, income and gains of a corporation from the date of incorporation (or from the date when a deficit was absorbed by a charge against the capital surplus created by a reduction of the par or stated value of the capital stock or otherwise) after deducting losses and after deducting distributions to stockholders and transfers to capital stock accounts when made out of such surplus.

Capital surplus arises from all other sources, such as (a) amounts paid in by stockholders in excess of par or stated value of capital stock; (b) donations of capital stock; (c) write-up of assets; (d) reorganization or recapitalization; (e) profit on sale of the company's own stock, etc. Statements filed with the S.E.C. must classify surplus under the following four headings, where practicable and capable of determination: "(1) paid-in surplus; (2) surplus arising from revaluation of assets; (3) other capital surplus; and (4) earned surplus." (Item 35, Rule 5–02, Regulation SX.)

The Commission has taken the position that write-downs of fixed property should be charged to earned rather than capital surplus on the theory that if such losses had been recorded currently when realized, income and earned surplus would have been decreased to that extent at the time. The American Rolling Mill Co., in its 1936 report filed with the S.E.C., showed an earned surplus of $5,468,719.64 and a capital surplus of $2,528,786.12. On examination, it was discovered that retirements of property in the amount of $1,700,000 had been charged to a reserve created out of paid-in surplus, and that depreciation in excess of $500,000 had been charged to capital surplus instead of earned surplus. Earned surplus was thereby overstated and capital surplus understated in excess of $2,250,000. Butler Brothers in 1932 set up reserves out of paid-in surplus for the downward revaluation of property, for amortization of improvements to leased premises, amortization of bond discount and payments to pensioners. As a result of these charges, income and earned surplus were overstated and capital surplus understated in excess of $3,000,000.

Restricted Surplus or Surplus Reserves.—Unless specific information to the contrary is disclosed, it is ordinarily assumed that the total

amount of earned surplus is freely available for dividends. If there is any legal impediment to declaring dividends from the full amount of earned surplus shown, either under the statutes of the state in which the corporation is incorporated or otherwise, this fact is of great importance to the analyst.

Where surplus is restricted for a specified purpose such as plant expansion, contingencies, redemption of funded debt or additions to working capital, the amounts so designated are listed separately as surplus reserves. Surplus earmarked for these purposes would not be used for dividend distribution, as otherwise no purpose is accomplished by segregating part of the surplus in this way. In computing the book value of a share of stock, surplus reserves are included along with other surplus.

ADDITIONAL INFORMATION.—The analyst should seek additional information about the items listed in financial statements in the supporting schedules, footnotes, and certificate of the independent public accountant. Failure to study these critically may lead to oversight of quite valuable information.

Consolidated Statements

ADVANTAGES AND LIMITATIONS.—The analysis of financial statements of a corporation owning stock of one or more subsidiaries is greatly facilitated by consolidation of the parent company balance sheet and income account with those of the subsidiaries. The S.E.C. requires, where a corporation owns, directly or indirectly, over 50% of the stock of others, not only parent company statements but also consolidated statements and separate or group statements of majority-owned subsidiaries not included in the consolidated report. But consolidated statements can be misleading, unless they are supplemented by separate statements of the parent and major subsidiaries. This was well exemplified by the case of the Baldwin Locomotive Works, which gave notice of its inability to meet interest payments on its first mortgage bonds in 1940, although cash shown on the balance sheet was several times the interest due. The company published only a consolidated balance sheet. The bulk of the cash shown on that statement belonged to a majority-owned subsidiary which required this money in its business, and so could not pass it on to the parent as dividends. If the parent's balance sheet had been provided separately, its unsatisfactory working position would have been made apparent.

The status of bond issues and other creditor claims against the parent and each of its subsidiaries often cannot be determined from a consolidated statement. Earnings for common stock shown by a consolidated statement may mean little, especially where a large part of the profits are earned by one or more subsidiaries unable to pay dividends to the parent because of accumulations of unpaid dividends on publicly held preferred stock, lack of cash or other reasons.

The American Institute of Accountants has emphasized "the necessity of giving further statements for the parent alone, and possibly for certain subsidiaries," in addition to the consolidated statements. Investment analysts will usually want separate statements of all included subsidiaries and unconsolidated subsidiaries, for a complete picture.

INCLUSION AND EXCLUSION OF SUBSIDIARIES IN CONSOLIDATED STATEMENTS.—Control over the management of subsidiary companies is usually considered a prerequisite to consolidated statements. Based upon this principle, many parent companies consolidate only subsidiaries in which the parent company owns directly or indirectly more than 50% of the voting stock. The American Institute of Accountants has expressed the view that a company of which less than 50% of the voting stock is owned should ordinarily not be included in the consolidation. For companies filing statements with the S.E.C., Rule 4–02 (a) of Regulation SX prescribes that "the registrant shall not consolidate any subsidiary which is not a majority-owned subsidiary." Subject to this limitation, that principle of inclusion or exclusion should be followed which will most clearly reflect the financial condition and operating results of the parent company and its subsidiaries.

The American Institute of Accounts (Examination of Financial Statements by Independent Public Accountants) points out that there may be good reasons to exclude majority-owned subsidiaries:

> In the case of foreign subsidiaries, for example, the accounts are frequently kept in foreign currencies; there are often legal restrictions on the transfer of funds; double taxation may have an influence on the receipt of earnings by payment of dividends to the parent company; and geographic and legal considerations may affect the extent of the control exercised. Circumstances such as these may lead to a determination that it is preferable to exclude the foreign subsidiaries from the consolidated statements.

For analysis purposes, it is of primary importance that there be disclosed, in a footnote to the statements or otherwise, the principle followed by the company in determining inclusion and exclusion of subsidiaries in consolidation, and whether the principle followed in the preparation of the current statements is consistent with the principle of inclusion and exclusion followed in the preparation of the statements of the preceding periods. Varying practices followed are:

1. Inclusion of only 100% owned subsidiaries.
2. Inclusion of only domestic subsidiaries.
3. Inclusion of all subsidiaries in which, directly or indirectly, more than 60% of the outstanding voting stock is owned.
4. Exclusion of subsidiaries in which, for whatever reason, the parent does not exercise control over distribution of earnings.
5. The parent's share in the undistributed earnings of nonconsolidated subsidiaries is shown in its income statement, in lieu of consolidation.

DIFFERENT CLOSING DATES OF PARENT AND SUBSIDIARIES.—Where a parent company has foreign subsidiaries or subsidiaries in remote parts of the country, it often takes a much longer time for an audit to be completed and the financial statements to be transmitted to the parent. Some corporations have their subsidiaries close their books from one to three months before the parent, so that the financial results will be available to the parent when the latter closes its books. The American Rolling Mill disclosed this information in a note to its consolidated balance sheet as follows:

Difference in Closing Dates

The accounts of a subsidiary and its foreign subsidiaries (were) closed . . . October 31, in order to allow sufficient time for such foreign companies to compile their financial statements and forward them for inclusion in the December 31 consolidation. Accordingly, in the consolidated profit and loss statement their operations are included for years ended October 31. The use of intercompany balances at October 31 for foreign companies and balances at December 31 for other companies results in differences, relatively unimportant at December 31, which have been classified in the consolidated balance sheet as Deferred Charges.

The S.E.C. will permit a registrant to include in its consolidated statements the accounts of those subsidiaries whose fiscal year ends on a date different from that of the parent, if all of the following conditions prescribed in Rule 4–02 (b) of Regulation SX are met:

If the statements of a subsidiary are as of a date or for periods different from those of the registrant, such subsidiary may be consolidated only if all of the following conditions exist: (1) such difference is not more than 90 days; (2) the closing date of the subsidiary is expressly indicated; (3) the necessity for the use of different closing dates is briefly explained; and (4) any changes in the respective fiscal periods of the registrant and the subsidiary made during the period of report are clearly indicated, together with the manner of treatment.

INVESTMENT IN SUBSIDIARIES CONSOLIDATED.—In acquiring the stock of a subsidiary the parent company may pay a price which is equal to, greater than, or less than its book value. The difference between the book value and the price paid for acquired stock of the subsidiary ordinarily is eliminated in consolidation. Although it is a common practice to charge this difference to the consolidated goodwill account where one exists, this is by no means uniform practice. Where a company has paid less than book value for the stock of a subsidiary, this discount has been variously treated in consolidated statements as negative goodwill, capital surplus, and as an addition to the depreciation reserve, depending upon the facts in the case.

Retained earnings and losses of subsidiaries cause a discrepancy to develop between the cost and book value of stocks of subsidiaries in any event. In this connection, Rule 4–05(a) of Regulation SX of the S.E.C. prescribes:

There shall be set forth, in a note to each consolidated balance sheet filed, a statement of any difference between the investment in subsidiaries consolidated, as shown by the parent's books, and the parent's equity in the net assets of such subsidiaries as shown by the books of the latter. If any such difference exists, there shall be set forth the disposition made thereof in preparing the consolidated statements, naming the balance sheet captions and stating the amounts included in each.

Park & Tilford, Inc. included part of this difference in the consolidated earned surplus account and part in the capital surplus. The note to its balance sheet stated:

The excess of the net worth of the subsidiary companies over the value at which these investments are carried upon the books of the Parent Company is $3,708,991.50, of which $1,290.336.50 representing undistributed net profits of the subsidiary companies subsequent to acquisition, is represented in the Consolidated Earned Surplus Account and the balance ($2,418,655) is represented in Capital Surplus.

The Armstrong Cork Co. included the excess of its equity in subsidiaries over its investment with earned surplus, as follows:

. . . For subsidiaries consolidated, the registrant's equity in all assets of such subsidiaries as shown on the books of the latter (after eliminating intercompany profit in inventories) exceeds the net investment in such subsidiaries as shown by the registrant's books by the amount of $3,148,275.82. This excess is included in the Earned Surplus in the Consolidated Balance Sheet.

United States Steel Corp. divided this difference between its property and earned surplus accounts, as follows:

The registrant's equity in subsidiaries consolidated is $245,660,573.14 in excess of the registrant's book investment therein. This excess has been credited in the consolidated balance sheet to the following accounts:

Property Investment	$149,129,660.99
Earned Surplus	96,530,912.15
Total	$245,660,573.14

RECONCILIATION OF DIVIDENDS RECEIVED FROM AND EARNINGS OF UNCONSOLIDATED SUBSIDIARIES.—The parent company's proportionate share of the undistributed earnings or losses of its majority-owned unconsolidated subsidiaries for the period under review is of vital importance for two reasons. First, the consolidated earnings plus or minus the parent's share of the net profit or net loss of the unconsolidated subsidiaries will reveal the combined profits of the parent and all of its majority-owned subsidiaries. The significance of this information was brought out in the following case cited by the executive assistant to the Committee of Stock List of the New York Stock Exchange:

A very large corporation formerly published consolidated statements including only its wholly-owned subsidiaries. These statements apparently justified the dividends which were regularly paid. It also held from 75% to 85% of the stock of certain large unconsolidated subsidiaries. When asked to publish either fully consolidated statements or separate statements of the subsidiaries, it developed that the companies' proportion of the current losses of the unconsolidated subsidiaries had for years been larger than the total profits of the rest of the system as shown by the unconsolidated statements. Certainly, in this case, however unintentionally, the stockholders had been misled.

Secondly, the difference between current earnings accruing to the parent, less dividends declared, will determine the net increase or decrease in the parent's equity in its unconsolidated subsidiaries. Where the investment account of the registrant in its unconsolidated subsidiaries has been kept at cost, such information, if available annually from date of acquisition to the date of the latest financial report, would permit the reader to determine the present equity of the registrant in the net assets of its unconsolidated subsidiaries.

MINORITY INTERESTS.—The size of minority interests in the capital stock of subsidiaries indicates how large a share of their earnings and assets belong to others than the parent corporation. The amount of such minority interests must be stated separately in consolidated statements filed with the S.E.C. This is desirable since it is only after

earnings due the minority interests have been deducted that profits accruing to the parent can be determined.

INTERCOMPANY ITEMS AND TRANSACTIONS.—Since consolidated statements are designed to show the financial condition and earnings of the entire group of corporations as a unit, intercompany sales, profits, dividends, loans, etc., are eliminated, if significant in amount. Practical considerations may at times necessitate minor exceptions to this rule. In such cases, Rule 4–08 of Regulation SX requires the following disclosure:

> In general, intercompany items and transactions, if significant in amount, shall be eliminated; if not eliminated, a statement of the reasons and the method shall be made.

The Accountant's Certificate

ROLE OF CERTIFICATION.—The certification of financial statements by independent public accountants is added assurance that the information has been presented in accordance with accepted principles of accounting, except where otherwise expressly indicated. Statements filed with the S.E.C. must be certified by independent public accountants. The accountant's certificate which must accompany the statements is required to contain a brief explanation of the scope of the audit, the accountant's opinion of the financial statements covered by the certificate and the accounting principles and practices reflected therein, together with any matters in the statements to which the independent accountant takes exception. (Rule 2–02, Regulation SX.)

Banks and credit agencies are attaching increasing importance to the audit of accounts by independent accountants, as is evidenced by the fact that the standard forms of financial statements developed by these agencies specifically request the following information:

1. **National Credit Office**—"Name and address of accountant; is he certified, registered or licensed; do these statements agree with your books and records and the report of your accountant and the tax closing date; how often does your accountant audit your books?"

2. **Dun & Bradstreet, Inc.**—"Is this statement based on and in exact accordance with a detailed audit made by a public accountant; if so, give accountant's name, address and state whether licensed and if so, in what state; if no public accountant is employed, so indicate."

3. **Federal Reserve Bank of New York**

This corporation employs (name and address), Certified Public Accountant, who audits our books every (state how often audit made) and made last audit report as of (month, date, year).

In the case of borrowers submitting financial statements to the Federal Reserve Bank of New York, the preference for certified reports is expressly indicated in item 26 of Circular No. 3109, dated July 12, 1946, which reads as follows:

> Since comprehensive information is usually contained in financial reports prepared by public accountants, such reports should be submitted to us if they are available.

Standard Forms

FORMS FOR CREDIT PURPOSES.—Little uniformity prevails in the form and content of financial statements of industrial and commercial enterprises, although regulatory authorities have established standard forms for railroads and public utilities. Conditions vary in different types of businesses, and a form of statement which might be suitable for one type of concern would not apply to another. Applicants for bank loans and commercial credit on trade purchases are required to submit, among other things, a copy of their financial statement. Ordinarily, a certified report prepared by independent public accountants is acceptable. In the absence of such report, however, banks and credit agencies have prepared their own standard form of balance sheet and profit and loss statement which are to be filled out by the borrower.

Standard forms for financial statements have been prepared by the National Credit Office, Dun & Bradstreet, Inc., the Federal Reserve Bank of New York, and the American Bankers Association. Fig. 3 shows the Dun & Bradstreet combination form, and Fig. 4 the long form for corporations of the Federal Reserve Bank of New York.

Ratio Analysis of Financial Statements

THE CURRENT RATIO.—The relation of current assets to current liabilities is of primary importance to the short-term creditor, since it is to these assets that he looks chiefly for the prompt payment of his debts. This current ratio measures the borrower's ability to meet his current obligations. It is computed by dividing the current liabilities into current assets, $\frac{\text{current assets}}{\text{current liabilities}}$.

Company A, with current assets of $500,000 and current liabilities of $250,000, will show a current ratio of 2:1. Simply interpreted, this means that for every one dollar of current debt, the borrower has two dollars of current assets to meet that obligation. It means further that, even if falling prices or adverse business conditions reduce a borrower's current assets by $250,000, the remainder would suffice to meet current debt.

While a ratio of 2:1 ordinarily appears quite favorable, it will not be so considered if the ratio for the industry averages 5:1. Standard ratios have been prepared for individual industries by credit agencies and trade associations for comparative purposes. The current ratio will vary from industry to industry and within the same industry from season to season.

The current ratio is affected by the inclusion or exclusion of particular items. In the case of Company A above, let us assume that on December 15 the company had discounted $100,000 of its customers' notes which were not due until January of the following year. On December 31, when this balance sheet was prepared, the company was thus contingently liable for $100,000 on its customers' notes discounted. Nevertheless, the discounted notes were excluded from Notes Receivable and the net proceeds had been added to cash. Since the company will have to make good on the amount of discounted notes if the obligors fail to pay them at maturity, this $100,000 should not be excluded from ac-

27488

STATEMENT MADE TO

DUN & BRADSTREET, Inc.

For the use of Subscribers as a Basis for Credit and Insurance

STATEMENT FORM C
(Combination—Rev.)

County:

Business Name Used for Buying

Other Name or Style Used, if any

Street Address Town State Business

Give complete list of branches

How has the War affected your business?

What products or types of mdse. have you added? Dropped?

What is amount of unsettled claims arising out of cancelled War Contracts? $ Date Are War Contracts subject to renegotiation? Yes ☐ No ☐ If yes, through what fiscal year have renegotiations been completed? What refund was required? $; What is the total amount of unfilled orders? $; What % is represented by War Contracts? %

FINANCIAL CONDITION AND PHYSICAL INVENTORY ON AND AS OF 19

ASSETS	{Where no figures are entered use the word NONE}	LIABILITIES	{Where no figures are entered use the word NONE}
1 CASH ON HAND AND IN BANKS	$	14 ACCTS. PAY. FOR MDSE. NOT DUE	$
2 CUSTOMERS RECEIVABLES:		15 ACCTS. PAY. FOR MDSE. PAST DUE	
a. Accts. NOT Pledged, Assigned, Disc. or Sold	$	16 OTHER ACCTS. PAYABLE	
b. Notes & Trade Accep. NOT Pledged, Assigned, Disc. or Sold		17 NOTES & ACCEP. PAY. FOR MDSE.	
c. Accts. Notes & Accep. Pledged or Assigned		18 OWING BANKS & OTHER LENDING INSTITUTIONS:	
d. DEDUCT: Reserves: (Accts. Rec. $) (Notes & Accep. $)		a. Unsecured (Straight Paper)	$
e. *Accts. Notes & Accep. Disc. or Sold with recourse* $		b. Endorsed or guaranteed by Officers, Directors, Stockholders or others	
3 MERCHANDISE NOT ON CONSIGNMENT: Cost ☐, or "at cost or market whichever lower" ☐		c. Secured by Accts. or notes pledged or assigned	
a. Raw Materials	$	d. Secured by mdse. pledged	
b. In Process		e. Otherwise secured (Specify)	
c. Finished Goods		19 DUE TO OFFICERS, DIRECTORS, STOCKHOLDERS	
d. *Of the above, how much is pledged or held subject to sales lien?* $		20 CHAT. MTGS. OR SALES LIENS	
e. Mdse. in transit *(not included in Assets or Liabs.)* $		21 SALES TAXES (Accrued & Unpaid)	
4 MERCHANDISE HELD ON CONSIGNMENT: $		22 FEDERAL INCOME & EXCESS-PROFITS TAXES (Explain on Opposite Page)	
5		23 ALL OTHER TAXES & ACCRUALS	
6		24	
7		25	
TOTAL CURRENT ASSETS		26	
8 MACHINERY & FIXTURES		TOTAL CURRENT LIABILITIES	
9 REAL ESTATE & BUILDINGS (Explain on Opposite Page)		27 MORTGAGES (Give due date)	
10 INVESTMENTS (Explain on Opposite Page)		28 BONDS (Give due date)	
11		29 RESERVE FOR DEPRECIATION ON MACH., FIXTURES & BUILDINGS	
12		30	
13		TOTAL LIABILITIES	
TOTAL ASSETS		NET WORTH — If Corporation: Capital Stock (Preferred, Common); Capital Surplus; Earned Surplus	
		NET WORTH — If Individual Or Partnership: Net Worth	
		TOTAL (Liabilities and Net Worth)	

Contingent Liabilities (Other than those stated above): Aggregate amount arising from endorsements, guarantees, unused portions of letters of credit, merchandise commitments, pending litigation, etc. $

USE REVERSE SIDE FOR

FIG. 3a. Financial Statement Form, Dun & Bradstreet

Item 9. REAL ESTATE AND BUILDINGS

Real Estate Owned by	Where Located	Cost	Market Value	Assessed Value	Mortgages on Same	Annual Income
		$	$	$	$	$

Item 10. INVESTMENTS

	$

Item 22. FEDERAL INCOME & EXCESS-PROFITS TAXES

Due for Last Calendar or Fiscal Year	
Amount Unpaid for Prior Year(s)	
If Interim Statement, Amount Accrued Since Last Calendar or Fiscal Closing	
TOTAL	$

PROFIT AND LOSS STATEMENT

FOR PERIOD FROM _____ 19__ TO _____ 19__

GROSS SALES _____ $ _____

Less returns $ _____

Less discounts $ _____ $ _____

Net Sales $ _____

Inventory—at beginning $ _____

Purchases $ _____

Manufacturing Labor and Expense $ _____

Total $ _____

Less Inventory—at end $ _____

Cost of Goods Sold (Deduct) $ _____

Gross Profit on Sales $ _____

Deduct:

Expenses $ _____

Officers' Salaries or Partners' Drawings $ _____

Bad Debts written off or reserves set up $ _____

Depreciation charged off $ _____

Less Total Deductions $ _____

Operating Profit or Loss $ _____

Plus Other Income: (Specify)

_____ $ _____

Less Other Deductions: (Specify)

_____ $ _____

_____ $ _____

Net Profit or Loss for the Period, BEFORE TAXES $ _____

Provision for Taxes $ _____

Net Profit or Loss for the Period; AFTER TAXES $ _____

Net Worth—at beginning $ _____

Less withdrawals of capital (or surplus) $ _____

Less Dividends $ _____

Plus additions to capital (or surplus) $ _____ $ _____

NET WORTH—at end $ _____

If Partnership, are the individual liabilities of each partner for Federal Income Taxes included in statement? Yes ☐ No ☐

Does the inventory shown represent an actual physical count? Yes ☐ No ☐

If no, state how inventory was calculated _____

_____

Do you manufacture for stock or against confirmed orders? _____

At what time of the year is your inventory highest? _____

" " " " " " " " " lowest? _____

Number of accounts represented by Accounts Receivable? _____

Regular selling terms? _____

FIRE INSURANCE: Mdse. $ _____ Machy. & Fixt. $ _____

Bldgs. $ _____ Use & Occupancy $ _____

Officers and Employees Bonded? Yes ☐ No ☐

Amount of Burglary or Theft Insurance $ _____ Life Insurance for benefit of business $ _____ On life of _____

Annual Rent $ _____ Lease, if any, expires _____ 19__

Is this statement based on and in exact accordance with a detailed audit made by a Public Accountant? Yes ☐ No ☐

If so, give Accountants:

Name _____

Address _____

Licensed? _____ State? _____

If no Public Accountant is employed, check here ☐

Give Full Names of all Officers, Directors, Partners or Proprietor. If Partners, state if General, Special or Limited

	FULL NAMES AND TITLES	Age	Married?	Native of	U. S. Citizen?
A					
B					
C					
D					
E					
F					

If Incorporated

Date Incorporated _____ Under laws of _____ Whom did you succeed? _____

No. of shares Preferred (auth.)? _____ Par Value $ _____ Subscribed $ _____ Paid in $ _____

No. of shares Common (auth.)? _____ Par Value $ _____ Subscribed $ _____ Paid in $ _____

Paid in, in Cash $ _____ Otherwise $ _____ Consisting of _____

Auth. bonded debt $ _____ How Secured? _____ Interest at _____ %

If Unincorporated

Is Ownership Registered? _____ Date _____ Name or Style Reg. _____

Names of Reg. Owners _____

Date of signing statement _____ 19__

_____

(Signature of corporation, partnership or individual)

BANK AND TRADE REFERENCES

By _____

(Signature of partner or officer duly authorized to sign) (Title)

FIG. 3b. Financial Statement Form, Dun & Bradstreet (second page)

Form CR 108
(Revised Feb. 1934)

Statement Form Suggested by
Federal Reserve Bank of New York
CORPORATION
(Long Form)

FINANCIAL STATEMENT

NAME _____

BUSINESS _____ ADDRESS _____

TO _____ BANK OF _____

We make the following statement of all the assets and liabilities of this corporation at the close of business on the _____ day of _____, 19__, and give other material information for the purpose of obtaining advances on notes and bills bearing our signature or endorsement, and for obtaining credit generally upon present and future applications.

(PLEASE COMPLETE ALL SCHEDULES AND FILL IN ALL BLANKS)

ASSETS	$				LIABILITIES	$			
Cash On hand, and unrestricted in banks					Notes Payable to Banks, Unsecured				
Notes Receivable, Not Discounted From customers, except subsidiaries, etc.					Notes Payable to Banks, Secured				
Notes Receivable, Discounted With banks, finance companies, etc.					Customers' Notes Discounted With banks, finance companies, etc.				
Accounts Receivable (Current & Collectable) From customers, except subsidiaries, etc.					Loans on Life Insurance				
Due From Subsidiaries & Affiliates Current accts. only, for goods, within regular terms.					Notes Payable for Mach'y, Equip't., etc. Payable within one year				
Merchandise—Raw Materials					Notes Payable for Merchandise				
—Supplies					Accounts Payable				
—Goods in Process					Due to Subsidiaries & Affiliates Current accounts & notes, for purchase of goods, etc.				
—Finished					Due to Subsidiaries & Affiliates Loans and advances				
Life Insurance, Cash Surrender Value (Do not deduct loans)					Due to Officers, Stockholders, Employees				
Securities, Readily Marketable Stocks, bonds, etc. listed on Stock Exchange, etc.					Accrued Liabilities For wages, interest, insurance, etc.				
					Mortgage and Bonded Debt Due and payable within one year				
					Taxes and Assessments				
Total Current Assets					Total Current Liabilities				
Land and Buildings, Used in Business Before depreciation reserves					Real Estate Mortgages Payable Due after one year				
Land and Buildings, Not Used in Business Before depreciation reserves					Bonded Debt, %, Due Due after a year (List issues separately)				
Machinery and Equipment Before depreciation reserves									
Furniture and Fixtures Before depreciation reserves					Other Deferred Liabilities (Describe)				
Trucks, Autos, etc. Before depreciation reserves									
					Total Liabilities				
					Depreciation Reserve—Buildings				
Investments in Subsidiaries & Affiliates Not including loans, advances, accounts, etc.					—Mach'y & Equip't.				
Due From Subsidiaries & Affiliates Loans, advances, slow receivables					—Furn. & Fixt's.				
Due From Officers, Stockholders, Employees					—Trucks, etc.				
					Preferred Stock Dividend Rate %. Cumulative?				
Accounts & Notes Receivable Slow or doubtful of collection									
Prepaid Expenses Taxes, insurance, interest, rent, etc.					Common Stock				
Patterns, Dies, Lasts, Copyrights, etc.									
Patents					Unearned or Capital Surplus				
Good Will					Earned Surplus				
Total Assets	$				Total Liabilities & Net Worth	$			

FIG. 4a. Financial Statement for Corporation, Long Form, Federal Reserve Bank of New York

STATEMENT OF PROFIT & LOSS—RECONCILIATION OF NET WORTH

For Period Beginning....., 19....., and Ending....., 19.....

Gross Sales—To Subsidiaries and Affiliates ..... $.....
—To Others ..... $.....
Less: Returns and Allowances (Except cash discounts) .....

NET SALES .....
Inventory, Beginning of Period .....
Purchases During Period (Before cash discounts) .....
Direct Labor .....
Other Costs, as Itemized Below (List separately all large ledger accounts)
.....
.....
.....
.....
.....
.....
.....
.....
Total .....
Less: Inventory, End of Period .....
Cost of Goods Sold .....

GROSS PROFIT .....

Administrative & General Expenses		Selling Expenses	
Officers' Salaries	$.....	Salaries	$.....
Other Salaries	.....	Commissions	.....
Interest	.....	Traveling, etc.	.....
Bad Debts (List separately below other large accounts)	.....	Advertising	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
Depreciation (Not applicable elsewhere)	.....	Total	.....
Total (Use next column)	.....		

Total Administrative, General, and Selling Expenses .....

NET OPERATING PROFIT .....

Other Income		Other Expenses	
Cash Discounts Received (List other items)	$.....	Cash Discounts Given (List other items)	$.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	Total Other Expenses	.....
Total Other Income (Use next column)	.....		

Net Addition or Deduction for Other Income and Expense .....

NET INCOME FOR PERIOD .....
Earned Surplus, Beginning of Period .....

Deductions from Surplus (Itemize below)		Additions to Surplus (Itemize below)	
.....	$.....	.....	$.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	Total Additions	.....
Total Deductions (Use next column)	.....		

Net Surplus Change .....
Earned Surplus, End of Period ..... $.....

FIG. 4b. Federal Reserve Financial Statement Form (second page)

SUPPLEMENTARY SCHEDULES AND INFORMATION

Important: Unless otherwise specified the following schedules reflect status as of balance sheet date.
(Wherever schedule space is insufficient, submit separate schedules containing same details)

Banking Relations (A list of all bank accounts)

Name and Location of Bank	Cash Balance	Amount of Loans	How Endorsed, Guaranteed or Secured

Accounts Receivable (Including nothing due from officers, stockholders, employees)	**Notes & Trade Acceptances Receivable**
NOT DUE—(According to original terms) ..... $	Original Notes & T/A's, not renewed ..... $
PAST DUE—Less than 3 months	Renewed Notes & T/A's
—From 3 to 6 months	Past due and protested Notes & T/A's
—More than 6 months	Total Notes & T/A's Receivable
Total Accounts Receivable	Less: Reserve for Doubtful
Less: Reserve for Doubtful Accounts	Notes & T/A's Receivable—Net
Accounts Receivable—Net Book Amount	Amount considered of slow collection
Amount of Accounts considered doubtful	Amount considered of doubtful collection
Amount of Accounts pledged, hypothecated, etc.	Amount of Notes & T/A's discounted, pledged, etc.

Selling Terms:

Merchandise. Basis of valuation ..... Amount of fire insurance $.....
Date of last physical inventory ..... Amount of slow moving merchandise $.....; of obsolete merchandise $..... Amount held on consignment $..... of which $..... is included in the balance sheet. Amount of merchandise pledged $.....; out on consignment to others $.....

During the year, the largest and smallest amount of merchandise on hand is in the months indicated:

	HIGHEST (Fill in the months)	LOWEST
Raw Materials		
Finished Goods		

Life Insurance

Name of Person Insured	Name of Beneficiary	Type of Policy	Face Amount of Policy	Total Cash Surrender Value	Total Loans Against Policy	To Whom Policy is Assigned
			$	$	$	

Securities Owned (With those representing Affiliated Interests designated by "A" and those considered Readily Marketable by "R. M.")

Face Value (Bonds) No. of Shares (Stocks)	A or R M	Description of Security	Registered in Name of	Cost	Present Book Value	Income Received Last Year	To Whom Pledged
				$	$	$	

Real Estate

	Location and Description	Age and Condition	Cost with Improvements	Assessed Value	Fire Insurance	Estimated Present Value
1			$	$	$	$
2						
3						
4						

	First Mortgage		Second Mortgage		Third Mortgage		Used In Business?	Yearly Gross Rental Income	Yearly Net Rental Income (Before Depreciation)
	Amount	Maturity	Amount	Maturity	Amount	Maturity			
1	$		$		$			$	$
2									
3									
4									

The legal and equitable title to all the real estate listed above is solely in the name of this corporation, except as follows:

Accounts and Notes Payable	**Insurance**
Amount past due, or renewed ..... $	Fire Insurance on machinery, fixtures, etc. ..... $
Purchase terms:	Automobile Liability Insurance
	General Public Liability Insurance

Continued on next page

FIG. 4c. Federal Reserve Financial Statement Form (third page)

Continued from preceding page

Maximum and Minimum Current Liabilities. During the last fiscal year current liabilities were at a maximum of $..... on..... 19....., and a minimum of $..... on ..... 19.....

Contingent Liabilities. This corporation has no contingent liabilities, except as follows: on Notes and Accounts Receivable, Conditional Sales Contracts, etc. discounted or sold with recourse to Banks and Finance Companies $.....; as Guarantor $.....; as Accommodation Indorser $.....; on Future Sales Contracts $.....; on Future Purchase Contracts $.....; in connection with Leases $.....; in respect to Lawsuits, including Torts, Injuries, etc. $.....; Patent, Copyright and Trademark Claims $.....; on Claims for Federal Taxes $.....; Other (describe)

Suits, Judgments and Other Legal Actions. There are outstanding or pending against this corporation no suits, judgments or other legal actions and to the best of the knowledge of the officers and employees no legal actions are to be started against this corporation, except as follows:

Pledge, Assignment and Transfer of Title of Assets. As of the date of the statement of assets and liabilities included in this financial statement, none of the assets of the corporation as listed herein were pledged, assigned, hypothecated, nor had the title thereto been transferred, except as noted in the schedules of this financial statement; and none of the assets of this corporation have been since that date pledged, assigned or hypothecated, nor has the title thereto been transferred, except as follows:

Bond Issues (Describe each issue separately). Description of assets on which a lien, including any current assets covered:

Summary of indenture provisions, including sinking fund requirements:

There are no defaults in connection with any of the provisions of the indenture(s), except as follows:

Name and address of Trustee(s):

Preferred Stock. Summary of provisions:

Voting powers of preferred stockholders:
Amount of preferred stock dividends accumulated and unpaid $....., representing a period of .....

Capital Stock. Number of shares of each class (1) authorized, and (2) outstanding:

Incorporation. Name of State under whose laws this corporation is organized:

Fiscal Period. The fiscal period of this corporation closes on the day of

Officers and Directors			Number of Shares Owned		
Name	Title	Annual Compensation	Common	Preferred	
		$			

Subsidiaries and Affiliated Companies and Interests. Names and addresses, nature of relationship, and how accounts are handled:

Certified Public Accountant. This corporation employs..... (Name and address)

Certified Public Accountant, who audits our books every..... (State how often audits made), and made last audit report as of....., 19.....

We hereby certify that the foregoing figures, comprising the statement of assets and liabilities and the statement of profit and loss and reconciliation of surplus, are taken from the books of this corporation and that they are in accordance with said books and that they and all other statements printed or written on the four pages of this form have been carefully read and are true and give a correct showing of the financial condition of the corporation as of the date shown in the paragraph preceding the statement of assets and liabilities on the first page, except where a different date is specifically noted. IN THE EVENT OF ANY MATERIAL CHANGE IN THE FINANCIAL CONDITION OF THIS CORPORATION, WE AGREE TO NOTIFY SAID BANK IMMEDIATELY IN WRITING.

Signed this.....day of.....19..... Signature.....

By..... (Name and Official Title)

FIG 4d. Federal Reserve Financial Statement Form (fourth page)

counts receivable for analysis purposes, but instead should be included among the liabilities as a contingent liability. The current assets and current liabilities on December 31 then would have been $600,000 and $350,000 respectively and the current ratio 1.71:1; or for every dollar of current liabilities there would be only $1.71 of current assets. As between the two, the latter is the more conservative presentation. The statement analyst must be constantly on the alert when examining the current ratio, to assure himself that all current items have been included and all noncurrent items, such as notes and accounts receivable from affiliates, officers, directors, and other employees, have been excluded.

THE "ACID TEST."—A supplementary measure of liquidity frequently used is the ratio between those current assets which can most readily be turned into cash and current liabilities. This ratio is computed by dividing current liabilities into current assets exclusive of inventory, $\frac{\text{current assets} - \text{inventory}}{\text{current liabilities}}$. The remaining assets in this group, consisting of cash, marketable securities and receivables, are considered quick assets. A ratio of 1:1 is usually considered favorable, since it indicates that for every dollar of current debt there is available one dollar of quick assets which can be turned into cash on short notice to meet current obligations.

NET CURRENT ASSETS.—The excess of current assets over current liabilities shows the proportion of the working capital of the business that is furnished by the owners or long-term creditors. In the instance cited above, net current assets amount to $250,000 (current assets $500,000 — current liabilities $250,000). This sum represents the margin of safety available to current debtors. Operating losses, bad debts, inventory declines, and a drop in the market value of securities held will be absorbed by this cushion. The larger its amount, the greater the ability of the enterprise to meet fixed charges, pay dividends to stockholders, invest in plant expansion where necessary and, where financial policy and efficient management so dictate, retire bonded indebtedness, thereby decreasing interest charges for the future.

The current ratio, acid test ratio, and amount of net current assets are measures of a borrower's ability to meet current debt only if the assets included are properly valued and can really be converted into cash on short notice without substantial loss. The two current assets which usually loom largest are accounts and notes receivable from customers and merchandise inventory. Tests have been devised to measure the quality of receivables and inventory; these are the **collection ratio** and **merchandise turnover.**

THE COLLECTION RATIO.—This measure of the average number of days that uncollected sales are outstanding is computed by multiplying the ratio of outstanding receivables to net sales by the number of days in the business year. For this purpose 360 is ordinarily used instead of 365 days. Thus, in the case of Company A which had outstanding accounts and notes receivable from customers of $120,000 and sales for the year of $720,000, the collection ratio would be computed as follows: $\frac{\$120{,}000}{720{,}000} \times 360 = 60$ days. This means that outstanding receivables equal

uncollected sales for 60 days, or approximately $1,000 per day. If normal terms of sale in the trade are 30 days then one-half of these receivables, or $30,000, would seem to be past due. Even if the balance of receivables outstanding on December 31 were $30,000, it is probable that some accounts would still be past due, since it is a common practice for a large proportion of customers to take advantage of cash discounts by paying their accounts before they are due.

The collection ratio is a valuable measure of the collectibility and currency of receivables and a good supplementary test of the validity of the current ratio. Where the collection ratio is substantially in excess of the usual trade terms in the industry, it is probable that many of the receivables are doubtful of collection. In such cases, the analyst should request additional information from the borrower consisting of detailed schedules of the accounts receivable showing amounts not yet due, amounts due and amounts past due, broken down into classifications such as 30 days past due, 60 days past due, etc. Precaution should be taken to see that all cash sales are excluded and only credit sales are included in this computation, as otherwise the resulting collection ratio will be completely distorted. Outstanding receivables should include only amounts due for merchandise sold on the usual trade terms.

MERCHANDISE TURNOVER.—Merchandise is purchased for resale at a profit. With money received, additional purchases can be made for resale at a profit. Ordinarily, the greater the turnover, the larger the amount of profit, the less capital is required to be tied up in inventory, and the more current will be the merchandise stock. In addition, the concern with the more frequent turnover, other things being equal, has a great competitive advantage in that it can afford to sell its merchandise at a lower price, for increased sales volume will yield a larger total profit even though the **margin of profit per unit** is slightly less.

Merchandise turnover, therefore, is a valuable measure of merchandising efficiency and inventory quality, especially of style and perishable goods. It is computed by dividing average inventory into the cost of goods sold. Where an income statement gives opening and closing inventories, the average inventory is arrived at by adding these sums together and dividing the total by two. If monthly inventories can be obtained, a more accurate average would be arrived at by adding together the monthly inventories and dividing by the number of months involved. Thus where total cost of goods sold in the profit and loss statement is given as $2,500,000, inventory at beginning of the period is $650,000 and inventory at end $350,000, the computation of merchandise turnover would be as follows:

Inventory at beginning	$ 650,000	
Inventory at end	350,000	
Total	$1,000,000	
Average Inventory ($1,000,000 divided by two)	$ 500,000	
Cost of Goods Sold	$2,500,000	
Average Inventory	$ 500,000	= 5 times for Merchandise Turnover

In the above case, the merchandise turnover is 5 times a year or, on the basis of 360 days, it may be stated that, on the average, the total stock is sold out or turned over every 72 days (360 divided by 5). If the average turnover in the industry is less than 5, this would be considered a favorable turnover. If, on the other hand, the average in the industry is 6 times a year, so that inventory is turned over approximately every 60 days, then this merchandise turnover might be considered too slow.

Where the turnover of a borrower is materially at variance with the average turnover in the industry, further investigation is desirable. A discussion with the borrower might disclose that the lower turnover of his merchandise might be due to (a) poor merchandising, (b) overvaluation of closing inventory, (c) overbuying—heavy purchases in anticipation of a rising market, or (d) a large stock of old, unsalable merchandise still carried at cost. Conversely, a substantially higher rate of turnover might disclose (a) an ultra-conservative pricing of closing inventory, (b) superior merchandising, (c) high quality stock, (d) the exclusion from closing inventory of items in transit which had been included in purchases.

CURRENT LIABILITIES TO TANGIBLE NET WORTH.—This ratio expresses the relationship of short-term borrowed capital to permanent contributed capital. It is a measure of the degree of protection to short-term creditors provided by the owners. The higher the ratio, the lower the security. It is computed by dividing tangible net worth into current liabilities.

Tangible net worth equals capital stock and surplus less intangible assets. The latter are excluded on the theory that in liquidation intangibles bring little, if any, cash. A company with current liabilities of $250,000, intangible assets of $50,000 and net worth of $1,050,000 (capital stock $800,000, surplus $250,000) would show a ratio of 1:4 computed as follows: $\frac{250{,}000}{800{,}000 + 250{,}000 - 50{,}000} = \frac{1}{4}$ or 25%. The current assets in this case are 25% of the capital, which would appear to be an ample margin of safety, since for every dollar contributed by short-term creditors stockholders have contributed or left in the business three dollars. If current liabilities were the only liabilities this would obviously be a favorable ratio. Where the company also has long-term debt, however, this ratio should be supplemented by the ratio of **total debt to tangible net worth.** As a general rule, a borrower with a modest current debt and a substantial long-term debt is a better short-term credit risk than one with a large current debt and small funded debt.

TOTAL LIABILITIES TO TANGIBLE NET WORTH.—This is a measure of the relationship between total borrowed and contributed capital, since it includes all liabilities of the borrower. Ordinarily, in the case of the moderate-sized commercial or industrial organization, this relationship should not exceed 100%. Otherwise, creditors will have contributed more than the owners, and the higher the percentage the lower the protection for the creditors. Where the owners' contribution is quite small compared to amounts due creditors, a sudden business

slump might wipe out completely the owners' capital and inflict heavy losses to creditors.

NET WORTH TO TOTAL ASSETS.—A test of financial strength which is of special interest to long-term creditors is the ratio of net worth to total assets. Generally speaking, the higher the ratio the stronger the financial condition of the organization, since the greater portion of the borrower's resources will have been obtained from contributed capital. Economic upheavals bringing severe financial losses will affect such a borrower less than one whose proprietary ratio is low, since the amount owed to outsiders is relatively small. Insistence on prompt payments of current debts probably would be met with little difficulty.

The temptation to trade on the equity is great since the smaller the amount of contributed capital, the larger the return per share of stock, assuming a satisfactory profit margin on sales. But danger lies in the need for meeting interest charges and debt maturities in depressions as well as in profitable periods. Heavy fixed charges in a period when profits are abnormally low are a common cause of bankruptcy.

FUNDED DEBT TO TOTAL CAPITALIZATION.—In many larger corporations capitalization comprises long-term bonded debt as well as capital stock and surplus. While some writers use the term "capitalization" to include only the par value of bonds and capital stock outstanding, for many purposes it is desirable to include surplus as well. Particularly is this true for corporations with low par or no-par stock carried in the balance sheet at a relatively small aggregate amount, so that surplus represents the bulk of the stockholders' equity. Exclusion of surplus would then misrepresent the amount of capital in the business.

The ratio of funded debt to total capitalization, expressed as a per cent of the total, reflects the relationship between long-term borrowed capital and permanent contributed capital. It is computed by dividing total capitalization, usually less book value of intangibles, into the amount of the funded debt. Thus a corporation with a bonded indebtedness of $600,000, preferred stock outstanding of $300,000, common stock $150,000, surplus $100,000, and intangible assets $150,000 has a capitalization of $1,000,000 (for computation of this ratio it is common practice to eliminate from net worth the book value of intangible assets). Of this total 60% represents long-term borrowed capital and 40% the stockholders' equity or contributed capital. While no hard and fast rule can be set down as to what a proper relationship should be in such cases, one rough rule of thumb is that the maximum percentage of funded debt for public utilities and railroads should not be in excess of 50% of capital structure and for industrials 33⅓%. Earning power may justify a higher or make desirable a lower maximum percentage in each case.

A too-heavy debt burden reduces the margin of safety to bondholders, increases fixed charges upon earnings, decreases earnings available for dividends to stockholders and, in the case of a sudden depression, might bring on insolvency and force reorganization.

FUNDED DEBT TO NET QUICK ASSETS.—The relationship between funded debt and net current assets measures the portion of the

funded debt which has been invested in current assets. For many industrial concerns, funded debt should not exceed net quick assets. Where net current assets are less than funded debt, a part of the funded debt as well as all the entire equity of the owners has been tied up in noncurrent assets. This may lead to difficulty over the long run in meeting sinking fund obligations or debt maturities.

TANGIBLE FIXED ASSETS TO FUNDED DEBT.—A ratio of 2:1 in this case would mean that for every dollar of bonded indebtedness there are available two dollars of book value of fixed assets to meet the obligation. But since book value and actual liquidating value may be greatly at variance, this ratio can at best be considered only an indication of relative security. In computing book value of fixed assets, depreciation should be deducted. Here again, earning power becomes the ultimate test of bond values, and this property ratio is only a supplementary measure.

TANGIBLE FIXED ASSETS TO TANGIBLE NET WORTH.—This ratio measures the proportion of contributed capital that has been invested in fixed property. The greater the investment in property, plant and equipment, the larger the charges against earnings for depreciation. In depression periods, the difference between profit and loss may be determined by the amount of depreciation charged against income.

The higher this ratio is, the less the protection for creditors. If it exceeds 100%, fixed capital is being provided by creditors as well as owners. This is standard practice for utilities and railroads, but would be a mark of weakness for most industrials, indicating a need for additional equity capital.

TANGIBLE FIXED ASSETS TO TOTAL CAPITALIZATION.—In industries like public utilities and railroads where fixed assets represent a major portion of total resources, the ratio of tangible fixed assets to total capitalization (tangible net worth plus long-term debt) is a more reliable measure of over- or underinvestment of capital in fixed property, since a substantial amount of the investment in fixed assets will normally be financed from proceeds of the sale of bonds.

TURNOVER OF TANGIBLE NET WORTH.—This is a measure of the efficiency of the employment of the net worth in the operations of the business. The ratio is computed by dividing tangible net worth into net sales. A comparison with the standard ratio for the industry will serve to indicate whether the borrower is overtrading or undertrading. **Overtrading** refers to an excessively large volume of sales in proportion to capital invested, and **undertrading** is the reverse. The danger of overtrading lies in the fact that the borrower must have recourse to larger amounts of credit, to a point where creditors contribute a larger amount of funds for current operations than the owners. As the ratio of debts to investment increases, the creditors' margin of safety decreases. If earnings fall off or prices drop, the borrower may find himself unable to meet his obligations and be forced into bankruptcy, with resulting losses to creditors. Overtrading may be remedied

by the investment of additional equity capital. A high ratio could also indicate unusual efficiency in operations, however.

Undertrading, on the other hand, affects management adversely, since the failure to make full and efficient use of invested capital inevitably results in decreased profit and, if permitted to continue, may result in operating losses in successive years. Undertrading may be remedied by changes in management, more vigorous sales policy, different methods of merchandising, etc. In any event, investors and creditors alike will be interested in this ratio and will wish to study carefully the underlying factors where the ratio is either too high or too low.

TURNOVER OF NET WORKING CAPITAL.—This ratio complements the ratio of turnover of net worth and measures the efficiency of the employment of quick assets in the operation of the business. While the turnover of tangible net worth might be satisfactory, the turnover of net working capital will prove unfavorable if the major portion of the net worth is tied up in fixed assets, thereby failing to provide sufficient net current assets to carry on the large volume of sales being conducted by the borrower. Working capital will then have to be procured mainly through borrowing.

This ratio is computed by dividing the net quick assets into net sales. When compared with the standard ratio in the industry for comparable companies, the ratio lends itself to the same sort of interpretation as the turnover of tangible net worth.

PROFIT RATIOS.—The ratio of income available for interest on funded debt to total capitalization (funded debt plus tangible net worth) expresses the percentage of return realized on the entire fixed capital investment, including both contributed and borrowed capital. When compared with comparable ratios for other companies in the same industry it is an indication of the profitableness of the funds used in the business.

The ratio of earnings available for interest to interest requirement is the key ratio in bond analysis, and is discussed elsewhere in connection with analysis of investment securities. Earnings per share, the chief ratio in stock analysis, is taken up in that connection also.

The ratio of net profit to net worth measures the rate of return to owners on their investment. Net profit on sales and other profit percentages are discussed under comparative statements below.

SELECTIVE USES OF RATIOS.—While these and other ratios are of value in the interpretation of the financial condition and operating results of a company, certain of them are of greater importance for particular purposes.

Short-Term Creditors.—Commercial bankers and other short-term trade creditors are primarily concerned with the ability of a borrower to meet his current obligations promptly. They are most interested, therefore, in the current asset ratios, including the turnover of net quick assets.

Long-Term Creditors.—While the long-term creditor is keenly interested in the working capital position of the borrower as an indication of ability to pay interest and principal even if earnings decline, he will

also find valuable the ratios of total liabilities to tangible net worth, net worth to total assets, funded debt to total capitalization, funded debt to net quick assets and tangible fixed assets to funded debt.

Management.—All the above ratios, with comparisons covering a period of years and competing companies in the same industry, are helpful to management in indicating where improvements in performance are possible. The percentage and trend relationships in the profit and loss statement, including gross profit ratios, net profit ratios, the percentages which major classes of expenses bear to sales, and the percentages individual items in a major expense group bear to the total of that group are also valuable in this connection.

COMPARATIVE STATEMENTS.—In analyzing the financial condition of the business, management will wish to compare the balance sheet of one year with others and note changes in each major group of assets, liabilities, and capital, as well as the per cent of change of the individual items within each of these groups. This type of analysis and interpretation is presented below.

Comparative Balance Sheet Analysis.—A comparative study of balance sheets at the beginning and end of a period, or between any two fixed dates, will disclose the changes which have taken place in the assets, liabilities, and capital between those dates. Such changes indicate the sources from which funds were derived during the period and how these funds were applied. The statement in which this information is presented is commonly referred to as a **Statement of Application of Funds.** It contains the same major sections as the balance sheet itself. The working capital section shows the changes in the company's current position, and the fixed capital section shows the changes in fixed assets and borrowed and contributed capital.

The example in Fig. 5 illustrates the simple work sheet used in analyzing changes and Fig. 6 the summary statement which presents: (a) amount of funds provided as well as the source; (b) how these funds were applied; and (c) the changes in working capital. It should be kept in mind that a number of the changes result from mere book entries in which no funds are involved. Such book entries should be reversed if the fund statement is to reflect accurately changes resulting from actual receipts and expenditures during the period.

Additional understanding of changes in the financial condition of an enterprise may be obtained from a study of percentage relationships of individual assets to total assets and individual liabilities to total liabilities, and charting of the trends over a period of years. By comparison with the statements of other companies in the same industry, informed judgments can be reached as to how efficiently capital is being used in the operations of the business.

Comparative Profit and Loss Statement Analysis.—A detailed comparison of two income statements of a company will reveal the changes in the particular income and expense items. Properly interpreted, causes of increases or decreases in sales, the cost of sales and major expense items may be determinable from such comparisons.

The example below illustrates the use of the **Statement of Variation of Net Profit** for the analysis and interpretation of operating data.

THE APEX COMPANY

Application of Funds—Working Papers

	Dec. 31 1945	Dec. 31 1946	Year's Excess		Working Capital		Funds	
			Debits	Credits	Increase	Decrease	Applied	Provided
ASSETS								
Land	$ 30,000.00	$ 20,000.00		$10,000.00				$10,000.00
Buildings	60,000.00	80,000.00	20,000.00				$20,000.00	
Stock of OR Company	10,000.00			10,000.00				10,000.00
Merchandise	7,000.00	8,800.00	1,800.00		$1,800.00			
Accounts Receivable	3,100.00	2,650.00		450.00		$ 450.00		
Notes Receivable	2,000.00	2,500.00	500.00		500.00			
Cash	4,000.00	5,500.00	1,500.00		1,500.00			
	$116,100.00	$119,450.00						
LIABILITIES								
Capital Stock Preferred	$ 25,000.00		25,000.00				25,000.00	
Capital Stock, Common	50,000.00	$ 80,000.00		30,000.00				30,000.00
6% Bonds Payable	15,000.00		15,000.00				15,000.00	
5% Bonds Payable		10,000.00		10,000.00				10,000.00
Accounts Payable	2,500.00	2,300.00	200.00		200.00			
Notes Payable	4,000.00	5,000.00		1,000.00		1,000.00		
Surplus	19,600.00	22,150.00		2,550.00				2,550.00
	$116,100.00	$119,450.00	$64,000.00	$64,000.00				
Increase in Working Capital						2,550.00	2,550.00	
					$4,000.00	$4,000.00	$62,550.00	$62,550.00

FIG. 5. Application of Funds—Working Papers

THE APEX COMPANY

Statement of Application of Funds
Year Ending December 31, 1946

FUNDS PROVIDED:	
By Sale of Land	$10,000.00
By Sale of Stock of OR Company	10,000.00
By Issue of Common Stock	30,000.00
By Issue of 5% Bonds	10,000.00
By Profits	2,550.00
Total Funds Provided	$62,550.00
FUNDS APPLIED:	
To Purchase of Buildings	$20,000.00
To Retirement of Preferred Stock	25,000.00
To Retirement of 6% Bonds	15,000.00
To Increase in Working Capital (per Schedule)	2,550.00
Total Funds Applied	$62,550.00

THE APEX COMPANY
Schedule of Working Capital

	Dec. 31 1945	Dec. 31 1946	Changes in Working Capital Decrease	Increase
CURRENT ASSETS:				
Merchandise	$ 7,000.00	$ 8,800.00		$1,800.00
Accounts Receivable	3,100.00	2,650.00	$ 450.00	
Notes Receivable	2,000.00	2,500.00		500.00
Cash	4,000.00	5,500.00		1,500.00
Total Current Assets	$16,100.00	$19,450.00		
CURRENT LIABILITIES:				
Accounts Payable	$ 2,500.00	$ 2,300.00		200.00
Notes Payable	4,000.00	5,000.00	1,000.00	
Total Current Liabilities	$ 6,500.00	$ 7,300.00		
WORKING CAPITAL	$ 9,600.00	$12,150.00		
INCREASE IN WORKING CAPITAL			2,550.00	
			$4,000.00	$4,000.00

FIG. 6. Statement of Application of Funds

J. MARSHALL & COMPANY
Profit and Loss Statements

	1945	1946	Increase or Decrease*
Net Sales	$200,000.00	$252,000.00	$52,000.00
Less Cost of Goods Sold	150,000.00	180,000.00	30,000.00
Gross Profit on Sales	$ 50,000.00	$ 72,000.00	$22,000.00
Less Selling Expenses	20,000.00	25.000.00	5,000.00
Net Profit on Sales	$ 30,000.00	$ 47,000.00	$17,000.00
Less General Expenses	10,000.00	12,000.00	2,000.00
Net Profit on Operations	$ 20,000.00	$ 35,000.00	$15,000.00
Less Net Financial Expense	5,000.00	4,000.00	1,000.00*
Net Profit for the Year	$ 15,000.00	$ 31,000.00	$16,000.00

J. MARSHALL & COMPANY
Statement Accounting for Increase in Net Profit

Net Profit—1946			$31,000
Net Profit—1945			15,000
Increase in Net Profit			$16,000

Accounted for as follows:

ITEMS INCREASING NET PROFIT:

(A) Increase in Gross Profits, caused by:

(1) Increase in volume of sales:

Sales—1946	$252,000		
Sales—1945	200,000		
25% (1945 rate of profit) of	$ 52,000	$13,000	

(2) Increase in rate of gross profit:

Year	Gross Profit	Sales	%
1946	$72,000	÷ $252,000	= 28.57+
1945	50,000	÷ 200,000	= 25.00
Increase in rate of gross profit			3.57+

$252,000 × 3.57%		9,000	
		$22,000	
(B) Decrease in Net Financial Expense:			
1945	$ 5,000		
1946	4,000	1,000	$23,000
ITEMS DECREASING NET PROFITS:			
(C) Increase in Selling Expenses:			
1946	$25,000		
1945	20,000	$ 5,000	
(D) Increase in General Expenses:			
1946	$12,000		
1945	10,000	2,000	7,000
INCREASE IN NET PROFITS (as above)			$16,000

The items in the profit and loss statement reduced to a percentage of sales offer a valuable means of interpreting results. Percentage comparisons highlight elements of strength and weakness often overlooked in

PROJECTION OF FINANCIAL STATEMENTS

SUBMITTED BY_____

ACTUAL PROJECTIONS

SPREAD IN HUNDREDS ☐ SPREAD IN THOUSANDS ☐ DATE PERIOD

PROFIT and LOSS	1	NET SALES						
	2	Less: Materials Used						
	3	Direct Labor						
	4	Other Manufacturing Expense						
	5							
	6	COST OF GOODS SOLD						
	7	GROSS PROFIT						
	8	Less: Sales Expense						
	9	General and Administrative Expense						
	10							
	11	OPERATING PROFIT						
	12	Less: Other Expense or *Income* (Net)						
	13	Income Tax Provision						
	14							
	15	NET PROFIT						
CASH PROJECTION	16	CASH BALANCE (Opening)						
	17	Plus RECEIPTS: Receivable Collections						
	18							
	19							
	20	Bank Loan Proceeds						
	21	Total						
	22	Less: DISBURSEMENTS: Trade Payables						
	23	Direct Labor						
	24	Other M'fg Expense						
	25	Sales, Gen'l and Adm. Exp.						
	26	Fixed Asset Additions						
	27	Income Taxes						
	28							
	29	Dividends or Withdrawals						
	30							
	31	Bank Loan Repayment						
	32	Total						
	33	CASH BALANCE (Closing)						
BALANCE SHEET	34	ASSETS: Cash						
	35	Marketable Securities						
	36	Receivables (Net)						
	37	Inventory (Net)						
	38							
	39	CURRENT ASSETS						
	40	Fixed Assets (Net)						
	41							
	42							
	43							
	44	Deferred Charges						
	45	TOTAL ASSETS						
	46	LIABILITIES: Notes Payable—Banks						
	47	Trade Payables						
	48	Income Tax						
	49							
	50							
	51	Accruals						
	52	CURRENT LIABILITIES						
	53							
	54							
	55							
	56	STOCK | Net Worth for						
	57	SURPLUS | Firms or Individuals						
	58	TOTAL LIABILITIES AND NET WORTH						
	59	WORKING CAPITAL						

FIG. 7. Projection of Financial Statements, Robert Morris Associates Form

a comparison of absolute amounts of difference. In the above case, for example, the profit and loss statement for the year 1945, reduced to percentages of sales, might be interpreted on a dollar basis as follows:

J. MARSHALL & COMPANY
Profit and Loss Statement for
One Year Ended December 31, 1945

For every sale of		$1.00
The cost of that sale was		.75
Leaving a gross profit of		.25
to cover following expenses for each one-dollar sale:		
Selling Expenses	.10	
General Expenses	.05	
Financial Expenses	.025	.175
The net profit on each one-dollar sale		$ .075

Comparisons of such percentages in successive profit and loss statements may reveal trends which management will find quite useful in the formulation of operating and financial policies.

Projection of Financial Statements.—A comparison of financial statements discloses changes which took place in the past. The important thing for management, creditors, and investors is to use this information as a basis for projecting financial and operating trends into the future, as a guide for intelligent action. The form of projection sheet presented in Fig. 7 has been sponsored by the Robert Morris Associates and is strongly indorsed by bankers throughout the country.

SECTION 6

SECURITY ANALYSIS

CONTENTS

PAGE

Investment Principles

Investment defined 263
Classes of investment 263
Investment principles 263
Safety of principle 264
Safety of income 265
The tax factor 267
Diversification 267
Legal investment restrictions 268
Portfolio policy 269
Security analysis 270
Investment investigation and research 271
Security ratings 271
Leverage factors 271
Analysis of particular groups of securities 272

Railroad Securities

Legal and economic factors 272
Railroad traffic 273
Passenger traffic 274
Railroad rates 274
Operating expenses 275
Analysis ratios 276
Railroad financial statements 276
Interstate Commerce Commission form of summary railroad income account (*f.* 1) 277
A complete income statement of a railroad (*f.* 2) 278 279
Railroad capitalization 280

Public Utility Securities

Distinctive features 282
Franchises 282
Utility rates 283
Utility valuation 283
Commission regulation 284
Analysis of a utility company 285
Statistical units 287
Classes of public utilities 287
Electric light and power 288
Gas companies 288

PAGE

Telephone and telegraph companies.. 289
Electric railways 289
Water works 289
Pipe lines 289
Public utility holding companies 290

Industrial Securities

Nature of the industry 290
Data for analysis 291
Factors of analysis 291
Sales prospects 291
Costs 292
Working capital position 293
Accounting peculiarities 293
Capital structure 293
Dividend prospects 294
Special factors 294
Ratio analysis 294

Financial Securities

Bank stocks 295
Insurance stocks 296
Other financial stocks 297

State and Municipal Bonds

Tax status 297
State bonds 298
Taxing power of states 298
Municipal bonds 299
Tax districts 299
Special assessment bonds 299
Revenue bonds 300
Investment factors relating to municipal bonds 300
Market for municipal bonds 300
Methods of repayment 300

Real Estate Mortgages

Classifications 301
Characteristics 301
Valuation 302
Ratio of loan to valuation 302
Mortgage insurance 302

SECTION 6

SECURITY ANALYSIS

Investment Principles

INVESTMENT DEFINED.—The term "investment" has three different meanings in common usage. In the broadest sense, investment refers to the placement of funds in productive assets to earn a profit. In this sense, a business man invests when he places additional funds in his own enterprise, as well as when he buys securities in businesses managed by others. A second definition of investment is the acquisition of assets, to be managed by others, to secure a return in the form of interest, dividends, rents, or capital appreciation. The third and most narrow definition of investment is the acquisition of assets to secure income where the degree of risk is limited so far as practicable. In this third sense, investment is distinguished from **speculation,** which involves the deliberate assumption of substantial risks to secure capital appreciation or a high rate of return; and **gambling,** which involves the making of wagers rather than the acquisition of interests in property.

Ownership of cash does not constitute investment. Only when cash is used to acquire interests in property, whether as creditor or owner, does investment occur. At the other end of the scale, income received for personal services rendered, including the management of capital for others, is not investment. Only a return or profit resulting from the placement of capital, rather than from rendering personal services, constitutes investment income.

In this section, the term investment will be used in the second sense stated above, the placement of capital to be managed by others to provide interest, dividends, rents, or capital appreciation.

CLASSES OF INVESTMENT.—The three chief classes of investments are: (1) government obligations, (2) corporate securities, and (3) real estate mortgages and ownership of real property. United States government obligations constitute a special group, as do real estate investments. This Section is concerned with corporate securities and state and municipal obligations.

Corporate securities, in turn, are classified as: (1) railroad, (2) public utility, (3) industrial, the most important group, and (4) financial. The category of "industrial" embraces issues of manufacturing, wholesale and retail, mining, service, and miscellaneous types of enterprises. Financial securities include those of banks, insurance companies, credit companies and investment companies.

INVESTMENT PRINCIPLES.—All investment involves risk. Even the purchase of United States government bonds, generally re-

garded as the highest quality security available, involves such risks as a decline in the quotation due to an increase in the level of interest rates or a contraction of the purchasing power of the dollars received as interest and principal due to a rise in the level of commodity prices. At the other end of the pole, the purchase of common stock in a newly promoted enterprise in a new industry involves manifold risks too numerous to mention.

Each investor must select his investment objectives, and then seek to achieve these objectives with the smallest degree of risk. A widow entirely dependent upon the income from her investments must hold the risks she assumes to an absolute minimum. On the other hand, a business man with a large salary may feel justified in assuming considerable risks in order to obtain substantial appreciation on his investments, particularly since capital gains are taxed far more favorably than current income for persons in the upper income brackets.

Safety in investment is thus a relative term, referring to the varying degree and number of risks involved in the acquisition of different types of investment. Most investors are concerned primarily with safety of principal, and secondarily with safety of income.

SAFETY OF PRINCIPAL.—This is usually measured in terms of dollars. An investor who places $1,000 in a security would like to know that he can recover substantially the same amount at any time, either through sale in the market or through redemption by the corporation. In times of rising commodity prices, however, many investors become concerned about keeping intact the purchasing power of their investments, since higher prices impair the buying power of a given capital sum and income derived therefrom. Protection of principal in terms of purchasing power involves the puchase of common stocks, real estate, and other forms of physical property that are likely to appreciate in price with a rise in the general level of commodity prices.

United States government obligations, although subject to some small risk of price depreciation for marketable issues because of a future rise in the level of interest rates, offer the highest degree of safety of principal in terms of dollars. Backed by the unlimited taxing power of the United States, and supported market-wise from time to time by the Federal Reserve banks, these obligations are regarded as the world's premier investment. Investors usually want a higher rate of return or appreciation prospects from other investments to compensate them for the greater degree of risk involved.

The safety of principal of corporate investments depends ultimately upon the amount and stability of the earning power of the issuer. True, the contractual position of the security will profoundly affect safety of the principal of capital invested in it. Bonds, as evidences of debt, enjoy a priority over stocks, which are shares in ownership. Mortgage bonds enjoy a priority over unsecured debenture obligations. Preferred stock with a preference as to assets is prior to common stock. But such priorities are of significance only when earning power is sufficient to sustain the value of at least the senior securities of a corporation, or when assets can be sold for enough to make payments on the senior issues.

A strong working capital position can provide safety for principal, at least for a time, even where earning power is deficient. A corporation

possessing substantial amounts of cash and government obligations can pay interest and dividends, and meet maturing obligations, for a time. Where earning power is substantial and working capital resources are large, security owners, particularly bondholders and preferred stockholders, enjoy a high degree of assurance of safety of principal.

While bonds and high-grade preferred stocks as a rule offer greater safety of principal than common stocks, a diversified group of common stocks in strong enterprises may provide a larger measure of safety of purchasing power when commodity prices rise. Even at other times, appreciation of some common stocks may more than offset depreciation of others. Unless these stocks are acquired at a time when the stock market is inordinately high following a long advance, the principal invested in them may remain intact under varying conditions over a long period of time.

Too much emphasis is sometimes placed on the specific assets pledged as security for a bond issue in measuring safety of principal. In practice, foreclosure very seldom takes place. Instead, assets pledged as security for a bond issue determine its relative treatment in a plan of reorganization. If the earning power of the issuer is sufficiently impaired, even first mortgage bonds may have to accept considerable sacrifice in the shape of modification of terms and a loss of income, if not of principal. In any event, severe price depreciation may occur temporarily because of the uncertainties involved and the suspension of interest payments that usually accompanies reorganization.

Marketability is of prime importance in providing safety of principal, since investors may wish to or need to turn securities into cash at any time. It is small comfort to an investor to know that his investment is of high grade if he must accept a substantial loss when he sells it. At the same time, it should be remembered that securities with a high degree of marketability often sell at a higher price than others of equal quality that do not possess this quality, for it is prized by most investors.

Experience has shown that there is no one rule of thumb for securing safety of principal in investment. Generally speaking, readily marketable high-grade bonds and preferred stocks of a strong company are best designed **among corporate securities** to keep principal intact. For such added safety of principal, the investor must be satisfied as a rule with a modest rate of return, and must give up the possibility of possible capital appreciation. However, technological changes, government policies, changes in taxation, and acts of God could impair the safety of individual investments even where they have met the most searching tests.

SAFETY OF INCOME.—Safety of income from an investment is closely related to safety of principal. Reduction or omission of interest or dividend payments will usually produce a sharp decline in the market quotation for a security, and thereby impair, at least temporarily, the integrity of capital invested in it. Furthermore, a relatively high rate of return obtainable from an investment is usually indicative of greater risk of loss. Prospective rate of return is, as a rule, related inversely to the indicated safety of invested capital.

Safety of income in the case of bonds is safeguarded by contract; and default on fixed interest bond issues enables the holder to sue for payment, and on obtaining a judgment to attach property to enforce payment of his claim. In practice, however, corporations seek the protection of the Bankruptcy Act before property is attached to enforce payment of such claims, and bondholders are then enjoined by the court from attaching property to enforce payment of interest due pending adoption of a plan of reorganization.

Regularity and adequacy of income for stockholders depends upon the earning power of an enterprise. Bondholders, similarly, despite their contractual rights, must look to earnings over the long run for assurance of the regular receipt of interest. Hence, safety of income for investors is measured best by the prospective earnings of the issuer. In the case of bonds, the number of times interest has been earned is the prime test of adequacy of earning power. If a corporation has more than one bond issue, the number of times interest has been earned may be calculated separately for any one issue together with prior and equal liens, as well as for the fixed charges as a whole. The latter is important because a default on junior liens, by precipitating a reorganization, may jeopardize or halt interest payments on senior issues also.

Thus let us say that a corporation has outstanding $10,000,000 of 4% first mortgage bonds and $20,000,000 of 5% second mortgage obligations. If earnings over a 5-year period averaged $2,100,000 per annum, interest of $400,000 on the first mortgage bond has been earned 4.75 times, but interest on both the first and second mortgages, amounting to $1,400,000 yearly, has been earned only 1.5 times. Should earnings decline to a point where interest on the second mortgage is not covered, the quality of the first mortgage bonds would become impaired because of the danger of default and reorganization, even though interest on this issue alone is still being covered with a considerable margin.

The ratio of earnings available for fixed charges to interest payable is sometimes computed without deducting federal income taxes first. This is logical, since interest is a deductible expense from taxable income.

Interest on **income bonds** is not included in fixed charges, since it is payable only if earned, but is considered separately as **contingent charges.** A separate ratio of earnings coverage is computed for income bonds to measure safety of income for such securities. This should properly be the ratio of earnings available for fixed charges to all interest payable, both fixed and contingent charges. The ratio of income available for income bond interest alone to such contingent charges is misleading where heavy fixed interest must first be paid, for a small decline in earnings could then quickly wipe out the margin left for income bond interest.

A related test of safety of income for bonds is the **factor of safety,** which is the percentage of net income after charges to bond interest. For example, if interest charges totaled $1,400,000 in a year and net income after charges was $700,000, the factor of safety was $700,000/$1,400,000, or 50%. This is the earnings cushion that protects interest payments to bondholders. Profits may decline by the amount of this cushion before they fall below the sum required to pay interest for one

year. The ratio of times interest earned is far more commonly used than the factor of safety ratio by bond men.

The ratio showing the number of times fixed charges are earned and the factor of safety reflect past performances, while investors are concerned entirely with future income from their investments. Hence, these ratios provide, at best, only an indication of investment quality which will actually be determined by future, rather than by past, performance.

The safety of preferred dividends is usually measured by expressing earnings available for this purpose as so many dollars per share of the preferred stock or by the ratio of net income available for preferred dividends, which is after income taxes, to preferred dividend requirements. A very significant related ratio is the ratio of earnings available for fixed charges to interest, preferred dividend requirements, and corporate income taxes combined.

Safety of income for common stocks is best indicated by the earnings per share. Thus, if a corporation earns an average of $4 per share and pays an annual dividend of $2, it is evident that the dividend is being earned with a substantial margin of safety. Only a major decline in earning power or an impairment of working capital would be likely to lead to a reduction in the dividend in this case. On the other hand, an increase in the rate of the dividend sooner or later is a probability if earnings are maintained, particularly if the company enjoys a strong working capital position and its future capital needs are not exceptionally large.

Ratios of earnings to interest and dividend requirements must be interpreted in the light of the stability of a corporation's income. The more stable the earnings record of an enterprise, the smaller the coverage and the margin of safety required to assure continuity of income for the corporation's bondholders and stockholders.

THE TAX FACTOR.—While safety of principal and income is the chief consideration governing investment decisions, other factors play an important part also. For individuals in the middle and higher income brackets particularly, taxability of investments is the chief of these, because of the high level of personal income taxes.

State and municipal bonds, being exempt from income taxes on interest, are found more desirable by many investors in the high-income brackets than other securities which give considerably higher yields. Other investors in the higher-income brackets are more interested in capital appreciation than in current income, because of the more favorable basis upon which long-term capital gains are taxed under the revenue laws. A wealthy investor whose current income is subject to a top tax rate of 70% would normally prefer to purchase a stock of a company that pays out little or none of its earnings as dividends, but that reinvests these earnings in the business and so enhances the market value of the shares over a period of time. The investor then obtains his return in the form of long-term capital gains.

DIVERSIFICATION.—Because some measure of risk inheres in every investment, the principle of diversification is adopted to minimize these risks. The value of diversification is reflected in the old adage that one should not "put all his eggs in one basket."

There are several ways of diversifying. But true diversification, investors should remember, must have a rational basis. Haphazard dispersion of one's funds over a long list of securities will not necessarily protect the investor from serious losses, particularly if these securities are acquired when quotations have been pushed to an inordinately high level by a speculative boom.

The types of diversification are:

1. **By classes of securities.** The purchase of stocks may give an investor protection for the purchasing power of his capital, and provide capital gains that are subject to a favorable rate of personal income taxation. The purchase of high-grade bonds, good real estate mortgages, and well-protected preferred stocks, on the other hand, provides a high degree of safety of principal and income for capital thus invested. Through including all these major classes of securities, the investor obtains protection against a variety of contingencies.

2. **By industry.** Any one industry may be affected adversely by economic, technological, or regulatory changes, while others may be doing quite well. Hence, an investor may want to limit the proportion of his funds placed in railroad, public utility, bank, petroleum, automobile, food, tobacco, or other industries, to limit losses that would result from adverse developments in any one of these.

3. **Geographical.** Investors may further diversify risks by buying foreign as well as domestic securities. It may be that economic prospects in some foreign countries are more favorable than those affecting domestic securities. Furthermore, business conditions may be improving in some countries, while a depression is threatened in others. But investors must recognize that when they invest abroad they incur international political, monetary, and other risks that do not arise, as a rule, in domestic investment.

4. **Cyclical and noncyclical investments.** Some industries, like iron and steel manufacturing, are very sensitive to the business cycle. Others, like food processing, are relatively stable through prosperity and depression periods. Since it is not possible to foretell the course of the business cycle with assurance, investors may want to include in their portfolios both types of issues. If they should guess wrong as to the course of business, the noncyclical issues would hold up relatively well, while stocks of cyclical industries might suffer severely.

5. **Long- and short-term bonds.** A rise in the prevailing level of interest rates would cause a substantial decline in prices of long-term bonds, no matter how high their investment quality may be. Short-term issues, because of their near maturity, will be little affected. Hence, investors in bonds will want to hold both long- and short-term maturities in their portfolios, unless they feel reasonably sure as to the trend of interest rates.

LEGAL INVESTMENT RESTRICTIONS.—Many investors do not have full freedom of choice in the purchase of securities. Financial institutions like banks and insurance companies are limited to "legal" investments authorized by state laws, or to securities that meet rating standards set up by regulatory authorities, which is the case with commercial banks. Trustees, whether corporate or individual, must conform to the state laws applicable to legal investments for trustees.

Wide differences of opinion prevail as to whether legal investment restrictions are constructive over the long run. The loss of flexibility, it has been argued, offsets whatever advantages arise from regulations designed to foster conservative investment policies by regulated investors.

PORTFOLIO POLICY.—The choice of securities by any investor, individual or institutional, should be guided by the specific objectives he has in view. Otherwise, unnecessary risks are assumed, and the investor undertakes a great deal of needless work in the management of his portfolio.

For example, an investor concerned primarily about the safety of his principal, with the rate of return a secondary consideration, can usually attain his objective best through the purchase of United States government obligations. To purchase other securities will involve him in risks and trouble that are not necessary, in view of the limited objectives he has in view.

Typical of portfolio policies of individual and institutional investors are the following:

1. **The purchase of United States government and other highest-grade bonds, to secure safety of principal with a limited rate of return.** This is the policy followed by banks and life insurance companies, whose liabilities are stated in dollars so that safety of principal must be their predominant consideration. Life insurance companies also buy high-grade preferred stocks. Individual investors not in position to risk loss of principal, and those without the knowledge or inclination to study changing conditions in order to manage a more complex portfolio, also will be well advised to pursue such a portfolio policy wholly or in large part.

2. **Cyclical policy, designed to take advantage of and to minimize losses from fluctuations of the business cycle.** Under this policy, holdings of common stocks are increased, and bond and preferred stock holdings are reduced, during depression periods, when a business upswing is anticipated. Conversely, stock holdings are reduced, and senior securities purchased, in the latter stages of a period of prosperity when a contraction in business and a decline in the security markets are likely to follow. In the choice of common stocks for such a cyclical investment policy, issues of companies in industries that will benefit most from the prospective period of prosperity, such as building, automobile, and metal stocks, will be favored. In the purchase of bonds, the highest-grade issues will be bought since the purpose is merely to keep capital intact and earning some return until stocks can again be bought on an attractive basis.

Every business cycle tends to be different. Hence, a cyclical investment policy cannot be pursued mechanically or by rule of thumb without courting disaster. The economic and technological circumstances must be studied in each case, so as to select issues that will profit most from the anticipated business upturn. The timing of purchases and sales is of the utmost importance in pursuing a successful cyclical investment policy.

3. **A "long-term growth" policy in which securities of companies in growing industries are chosen for the portfolio.** Long-term growth

is expected to offset mistakes in timing purchases and in the choice of investments, and thus provide reasonable safety of principal, safety of income, and also appreciation in the long run.

The newest industries, no matter how assured their growth may be, seldom provide suitable investment media, however. In the pioneering stage of an industry, many companies are promoted that fail to survive. More than a hundred automobile manufacturing companies were started, for example, but only a handful are now in operation, and only three of these account for the bulk of the output. Investors lost large sums in the stocks of automobile manufacturers that fell by the wayside in the early period of rapid growth of this industry. Only after an era of development and seasoning does a relatively new industry provide securities of investment merit. An exception occurs where already established companies expand their activities into newer fields.

4. **A "consumer goods industry" policy.** This involves the purchase of securities of well-established companies in the stable consumer goods industries, which enjoy substantial earnings and can maintain dividends through bad times as well as good. By purchasing stocks of financially strong companies in the telephone, electric light and power, food, tobacco, and similar industries, the investor hopes to escape serious losses from depressions that may develop. By the same token, these industries usually benefit to a smaller extent from periods of prosperity than those that are more sensitive to the business cycle.

5. **A "special situation" policy.** This involves the use of capital to take advantage of specific opportunities offering substantial profit with what is believed to be a minimum of risk. Liquidation of holding companies, corporate dissolutions, reorganizations, mergers, and arbitrage are examples of special situations that are favored for this type of investment policy. It requires a high degree both of skill and of knowledge, including a clear understanding of the legal and tax aspects of such transactions. While this policy can be pursued at all phases of the business cycle, profit possibilities are smaller and risks are greater during prosperity periods, when the bargains sought by the "special situation" hunter are fewer and more eagerly sought after by others.

The application of each of these portfolio policies calls for constant vigilance on the part of the investor, so that he can adapt his holdings to ever-changing conditions. It is not wise to pursue any investment policy, even that of purchasing United States government obligations, by locking away a number of securities in a safety deposit box and forgetting about them for years. All investors should periodically review their portfolio policy objectives and the steps that should be taken to achieve them.

SECURITY ANALYSIS.—Security analysis is a necessary instrument for carrying out an investment policy—it is not a substitute for a policy. Having adopted a suitable policy, security analysis is required for the selection of the groups of securities and the individual issues that are best adapted to attaining the goals in view with the smallest attendant degree of risk. Analysis is also needed to guide subsequent portfolio shifts in accordance with the investment policy chosen.

Relatively few investors are capable of making adequate analyses of securities, or can afford the time and expense involved if they could

make them. Brokerage and investment houses and services available for a fee perform such analyses for clients, as do trust companies and investment counselors. Investors should keep in mind, however, that the facts given them may be biased either by the self-interest of the salesman selling a security for an investment house or by a customer's man eager for business to produce commissions. Even where information is given him in good faith, he should weigh known unfavorable as well as favorable facts, and remember that good judgment, as well as facts, is needed to conduct an investment policy successfully.

INVESTMENT INVESTIGATION AND RESEARCH.—Investigation of pertinent facts about a security covers (1) the financial position of the issuing company or government, (2) the position and outlook for the industry in which the company is engaged, and (3) general economic and financial conditions. The first includes the accounting and statistical facts about the company and its business. For railroads and public utilities, there is a large body of data available in official sources for such investigation. In the case of smaller industrial concerns, municipalities and foreign governments, the required information is not so readily available.

A knowledge of the industry will give the investor help in interpreting data about individual enterprises. A study of general business and financial conditions is of particular importance in timing purchases and sales, especially where a cyclical investment policy is being pursued.

SECURITY RATINGS.—Several investment services have formulated systems of rating securities for investment, much as commercial credit agencies rate business concerns for the granting of commercial credit. Ratings are based on a few investment tests, and consequently ratings will differ according to the tests selected. Thus, ratings by the Moody Investment Service reflect the three factors of asset value, earning power and stability. The investor should ascertain the factors used in making the rating, as the elements chosen might not be those in which he is primarily interested.

The three systems of ratings in general use are those of the Moody Investment Service, Standard & Poor's, and Fitch. The rating or rank assigned to a security under each of these systems is denoted by a letter, figures, or other symbol. Moody's system uses letters, as follows: Aaa; Aa; A; Baa; Ba; B; Caa; Ca; and C. Standard & Poor's uses letters and figures as follows: A1+; A1; A; B1+; B1; B; C1+; C1; C; D1; and D. The value of any system of rating is limited by the character and number of tests used, as well as by the fact that the financial statements employed for arriving at the ratings apply to past, rather than future, performance. Hence, ratings tend to follow the market. Where the quality of a high-grade bond becomes impaired through loss of earning power by the issuer, ratings are lowered as smaller profits are reported from time to time. But the market quotation for the bond often anticipates such a declining earnings trend some time ahead, or at least reflects the smaller profits as they are currently reported.

LEVERAGE FACTORS.—The amount and stability of earning power of a corporation depends not only on its cyclical character, but

also on the degree of operating leverage and capital leverage present.

A high degree of operating leverage is said to be present when operating costs do not vary materially with the volume of sales or selling prices. Then larger sales produce far greater proportional increases in earnings, and vice versa. This is illustrated by the following hypothetical case:

	Low Operating Leverage	High Operating Leverage
Sales	$1,000,000 + 50% = $1,500,000	$1,000,000 + 50% = $1,500,000
Variable expenses	700,000 + 50% = 1,050,000	100,000 + 50% = 150,000
Nonvariable expenses	100,000 — = 100,000	700,000 — 700,000
Net (before income taxes)	200,000 + 75% = 350,000	200,000 + 225% = 650,000

The impact of a high operating leverage is just as severe in reverse, needless to say, with declining volume or prices, or both, and then results in severe impairment of earning power.

Capital leverage is determined by the relationship between fixed charges and the income available for all charges. An example of a high capital leverage situation would be a corporation whose capitalization consists of $20,000,000 of 4% debentures, 100,000 shares of $5 preferred stock and 200,000 shares of common stock. Fixed charges total $800,000 and preferred dividend requirements $500,000. With earnings after taxes of $1,500,000, net per common share is $1. Should better business conditions enable the company to increase earnings 50%, net for the common would be $4.25 a share, an increase of more than fourfold. A 15% decline in income, on the other hand, would more than wipe out the equity in earnings of the common stock. Shares of companies with a highly pyramided capitalization thus show wide changes in earning power even with moderate fluctuations in earnings.

ANALYSIS OF PARTICULAR GROUPS OF SECURITIES.—The remainder of this Section presents basic facts about particular groups of securities which are important to the security analyst. These facts will help him to apply the broader principles of analysis to individual security issues in these groups.

Railroad Securities

LEGAL AND ECONOMIC FACTORS.—The railroad industry is subject to comprehensive regulation by the Interstate Commerce Commission, a federal agency, and to a limited degree of regulation by state commissions also. Under the Interstate Commerce Act, the Interstate Commerce Commission has the power to fix freight and passenger rates, to pass upon the issuance of new securities, to regulate accounting, to pass upon proposed mergers, consolidations, and leases, and to supervise other phases of railway operation. Because railroad rates are set by a regulatory agency, while wages are determined by collective bargaining between the powerful railway labor unions and the managements, the earning power of the railroads has been at times quite vulnerable because of wage and material price increases that cannot be offset with advances in rates.

Railroads must be classed among the "heavy" industries. A very large capital investment is required. Their traffic has consisted increas-

ingly of raw materials, semi-manufactured goods, and durable manufactured products that are less readily carried by motor trucks and other competing carriers. Hence, the railroads are strongly affected by cyclical movements of business activity.

Railroads are subject, furthermore, to a high degree of both types of leverage. Operating leverage results from heavy maintenance required of the extensive property investment and from the strength of the railway labor unions, which have not only obtained repeated wage increases, but have also forced adoption of a number of "featherbedding" rules that raise operating costs. Capital leverage reflects the high interest and lease rental charges of most railways. Cyclical declines in traffic and heavy bonded indebtedness have brought on waves of failures in periods of severe depression, the worst in the early 30's. The World War II period, however, brought record traffic and tremendous earning power for the railroads, and they took advantage of the opportunity to retire large amounts of debt, to refund other debt at important savings in interest, and also to build up working capital to record levels.

Previously a virtual monopoly of intercity transportation, the railroads in the past two decades have suffered from keen competition of other transportation facilities, including private automobiles, trucks, buses, water carriers, air lines and pipe lines. There has been both a substantial loss of traffic to these competing carriers and erosion of railway rate structure as the railroads have fought to hold their traffic from their competitors. For hire and private trucks have made great inroads into the short haul and high rate traffic. The larger part of the passenger traffic has been lost to automobiles, buses, and air lines. Only during World War II, when the competing agencies were severely hampered in many ways, did the railroads largely escape the effect of such competition for a brief period, and at that time their earning power reached a new peak. The fact that competing forms of transportation are now subject to a larger measure of regulation, and face higher labor costs, may strengthen the competitive position of the railways in the future. Modernization of railway services and facilities lead to the same result. It is the aim of national transportation policy that in the future each transport agency shall have its proper place in the nation's transportation system. They are to compete with each other, but within the framework of regulation which is to bar cutthroat and uneconomic rate cutting.

RAILROAD TRAFFIC.—The major source of railroad operating revenue is freight traffic. The volume of traffic handled depends to a large extent on the location and economic character of the territory served, competing transport facilities available, and the traffic connections developed by the particular railroad.

Density of traffic is very important for earning power. Although it is usually more profitable to carry freight over long distances than for short hauls, a small compact road may be more profitable than transcontinental lines if it carries a sufficiently large volume of traffic. Density is measured by the revenue ton-miles carried per mile of line per annum. A density of less than 1,000,000 ton-miles per annum on an ordinary railroad main line raises the question whether the traffic volume is sufficient for regular profitable operation.

Freight traffic falls into six major categories:

1. Products of agriculture, which include grains and grain products, fruits and vegetables, cotton, and other crops. The volume of agricultural products carried varies with the size of the crops, marketing conditions, and export movements.
2. Animals and products. Motor vehicles have made deep inroads into such traffic.
3. Products of mines, the most important part of rail traffic, is least vulnerable to competition. Coal is by far the most important single item of freight traffic on American railroads. A number of building materials are included in this group. Crude petroleum is largely carried by pipe line and tanker.
4. Products of forests, which in some areas are quite vulnerable to water competition.
5. Manufactured and miscellaneous traffic in carload lots accounts for the largest part of freight operating revenues for the railroads as a whole.
6. Merchandise in less-than-carload lots (l.c.l.), much of which has been lost to trucks.

The Interstate Commerce Commission publishes yearly a detailed breakdown of the freight traffic of each railroad into a long list of commodity groups, under the title of Freight Commodity Statistics.

Passenger Traffic.—On most railroads, passenger traffic makes only a minor contribution to railway operating revenues. For the industry as a whole, it is unprofitable. Where a railroad derives a large percentage of its revenues from carrying passengers, as on the New Haven, it is not considered a favorable factor. The overhead costs involved in a large passenger traffic are high, and are especially burdensome in times of low business activity because passenger trains have to be run on schedule whether they are full or not, and the cost of running them tends to remain fixed.

Passenger traffic declined steadily after 1920, chiefly because of the development of the private automobile. In World War II, with gasoline and tire rationing, it rose to a new high, but this reversal of trend proved quite temporary. The increasing use of lightweight, streamlined trains, however, is expected to enable the railroads to compete effectively on many routes with air lines and buses.

Other sources of revenue, mail, express, and miscellaneous services are of relatively minor importance.

RAILROAD RATES.—The Interstate Commerce Commission has the authority to change railroad rates, on its own initiative or on the application of carriers or shippers. The Commission's authority is quite broad under the law, and it may consider the effect of rate changes upon the movement of traffic, as well as upon earning power. Therefore, in times of depression, the I.C.C. dislikes to increase rates because this is a burden to business and speeds diversion of traffic to other transport agencies.

The level of rates is best measured by revenue received per ton-mile, both for all freight and for particular classes of freight traffic. Rate changes for individual types of traffic, announced from time to time, have important repercussions on the earning power of individual railroads. In some instances a rise in rates, as on citrus fruits between

Florida and North Atlantic ports, may affect railway revenues adversely by diverting part of this traffic to water carriers.

OPERATING EXPENSES.—Railway accounting is peculiar in that depreciation of fixed assets is of limited importance. In its place, current maintenance looms large, the theory being that a property well maintained does not in fact depreciate. This accounting practice gives far more flexibility to management, permitting heavier maintenance outlays in good times and smaller outlays when revenues fall off.

Maintenance of way and structures includes the cost of replacing rails, ties, ballast, and other parts of roadway and terminals, as well as the wages of labor necessary to maintain tracks, terminals, bridges, and other structures in proper condition. Topography, the proportion of branch mileage and the severity of the climate play an important part in determining what proportion of operating revenues must be spent for maintenance of way and structure. Effects of maintenance expenditures are cumulative, so that a road which has been overmaintained for a number of years can afford to cut maintenance sharply for a time to counteract a period of low business activity, but an undermaintained road must step up such outlays sooner or later or safe operation will be jeopardized.

Since 1943, the I. C. C. has required annual deductions for depreciation of certain ways and structures, which are included in maintenance.

Maintenance of equipment, comprising the cost of labor and materials used for the upkeep of locomotives, cars, and other rolling stock, is less subject to variation from year to year. However, when traffic declines substantially, a railroad may leave in bad order part of its rolling stock not currently required, to be repaired when traffic volume expands again. The character of equipment, its age, and the extent to which existing rolling stock is to be replaced in the near future will all affect the amount of equipment maintenance outlays of a railroad.

Charges for depreciation and retirement of rolling stock are included with maintenance of equipment. These are considerably larger than for way and structures, being based on composite percentages fixed by the I. C. C. Depreciation of equipment has been in effect since 1914.

Transportation expense constitutes the largest single group of railway operating expenses. Unlike maintenance, it cannot be deferred but varies directly with the volume of traffic. However, increases or decreases in transportation expenses tend to lag behind the rise and fall of traffic, for some time elapses before the number of trains operated can be expanded or contracted. Because transportation costs may not be deferred, the trend of such costs over a period of years may give a measure of efficiency of management.

Traffic expense includes the cost of obtaining traffic, both personnel and advertising. It corresponds to selling and advertising expense in other industries. **General expense** comprises main office salaries, including accounting, insurance and other departments and legal costs. **Transportation for investment, credit,** included in operating expenses, is the amount of expense incurred in moving freight for a railroad's improvement projects whose cost is to be capitalized, rather than written off

against current income. This item is deducted from the total of operating expenses.

ANALYSIS RATIOS.—With the plethora of statistics of railway operation that has been made available by the I. C. C., numerous ratios are available for measuring the efficiency and economy of operation of one railroad over a period of years, as against others in its area, or the nation's railroads as a whole. It should be remembered, however, that the location and character of traffic of a railroad may be the dominant factors in determining these ratios, rather than management policy. Thus, the Pocahontas coal carriers, Chesapeake & Ohio, Norfolk & Western, and Virginian, carrying solid trainloads of coal on downgrades from the West Virginia mountains to tidewater, have exceptionally favorable ratios because of the nature of their traffic, the paucity of branches, and, to a lesser extent, because their grades are with, rather than against, the traffic.

The **operating ratio,** most widely used, gives the ratio of all railway operating expenses to railway operating revenues. The **maintenance ratio** shows the percentage of railway operating revenues that is devoted to maintenance, including depreciation. The **transportation ratio** is the percentage of transportation expenses to railway operating revenues. Each of these ratios is usually compared for a given railroad over a period of years, and for similarly situated railroads.

A more thorough analysis of the operations of a particular railroad may be made by performance ratios. The most widely used are **average tons per loaded freight car, freight cars per freight train,** and **train-miles per train-hour,** the latter measuring the average speed of freight trains. These three performance ratios are combined in what is sometimes called the key ratio of efficiency of railway operation—**ton-miles per train-hour.** Since the revenues of a railroad vary with ton-miles carried, while expenses are incurred mostly in proportion with train-hours operated, this ratio reflects the key operating factors affecting railroad earning power. Adequacy of maintenance of way expenditures can be measured by **maintenance outlay per equated track mile** and miles of track replaced with new or used rail, and the weight of rail placed. **Equated track miles** are computed by counting the first main track as 1, double and other multiple track as .8, and other track, including sidings and spurs, at .5. Adequacy of maintenance of equipment is measured by repair outlays per locomotive and per freight or passenger car, and by the percentage of locomotives and cars that are in bad order awaiting repairs. Over-all efficiency of freight operation is indicated by the ratio of **car-miles per car-day,** which measures the extent to which cars are kept moving and so contributing to revenue. Pounds of fuel used per locomotive-mile and average cost of fuel used measure efficiency of fuel utilization.

These and other ratios are computed by the Interstate Commerce Commission in an annual volume entitled Comparative Statement of Railway Operating Statistics.

RAILROAD FINANCIAL STATEMENTS.—Railroad accounting has been subject to detailed regulation by the Interstate Commerce Commission since 1914. At first, such regulation made for more complete and detailed reporting. With the passage of time, however,

railway financial accounting has fallen behind standards established in other industries, particularly with regard to consolidation of parent and subsidiary statements, depreciation, and so on. It should be remembered, however, that the I. C. C. is primarily concerned with accounting to facilitate regulation, rather than with accounting for investors, which is the primary concern of the S.E.C.

The required form of annual **income account** for Class I railroads (those with annual operating revenues of $1,000,000 or more), with 1951 figures, is shown in Fig. 1.

Income Account of Class I Railroads

Railway operating revenues	$10,390,672,580
Railway operating expenses	8,041,223,177
Net revenue from railway operations	$ 2,349,449,403
Railway tax accruals	1,203,238,466
Railway operating income	$ 1,146,210,937
Hire of equipment, net balance, Dr.	159,187,553
Joint facility rents, net balance, Dr.	44,327,125
Net railway operating income	$ 942,696,259
Nonoperating income (including miscellaneous operating income)	273,451,325
Gross income	$ 1,216,147,584
Deductions from gross income	523,091,002
Net income	$ 693,056,582

FIG. 1. Interstate Commerce Commission Form of Summary Railroad Income Account

It will be noted that in railroad statements income taxes, as well as other taxes, are deducted before computing railway operating income. This tends to understate fixed charge coverage, as against the more common practice of deducting income taxes after interest deductions.

Railroads are constantly using each other's rolling stock for through shipments, resulting in hire of equipment debits and credits. A line with a large car supply, and one that originates a large part of its traffic, will usually have a credit from this source, but most railroads report debits. Railroads as a whole report debits because they use refrigerator, tank, and other cars belonging to industrial companies and specialized operators of such cars. The Pacific Fruit Express, largest operator of refrigerator cars, is owned jointly by the Union Pacific and Southern Pacific Railroads, and its profits are paid to the owning carriers as dividends (nonoperating income).

Joint facility rents are payments for the use of terminals, bridges, and other properties used by two or more railroads. A few railroads, such as Northern Pacific, report a credit, since their terminal facilities are largely used by other lines. Some railroads report heavy joint facility rents paid because they do not have sufficient facilities of their own, and this can constitute a fixed financial burden similar to fixed charges in such cases.

A full income account of a railroad is exemplified by the following statement (Fig. 2) of the Atchison, Topeka & Santa Fe, taken from its annual report for 1951:

THE ATCHISON, TOPEKA & SANTA FE RAILWAY COMPANY—SYSTEM

Comprising The Atchison, Topeka & Santa Fe Railway Company; Gulf, Colorado & Santa Fe Railway Company; and Panhandle & Santa Fe Railway Company

Income Account

Year ended December 31, 1951

	1951
RAILWAY OPERATING REVENUES:	
Freight	$466,225,449
Passenger	52,578,289
Mail	25,041,367
Express	7,224,857
Miscellaneous	19,511,746
	570,581,708
RAILWAY OPERATING EXPENSES:	
Maintenance of way and structures	92,820,726
Maintenance of equipment	106,095,169
Traffic	13,660,585
Transportation—rail line	189,972,176
Miscellaneous operations	11,868,973
General expenses	11,872,695
	426,290,324
Net revenue from railway operations	144,291,384
RAILWAY TAX ACCRUALS:	
Federal taxes:	
Income, normal and surtax	51,238,157
Excess profits (Cr.)	*14,876,526*
Payroll—	
Retirement	13,319,726
Unemployment	1,110,062
Other	112,756
Total	50,904,175
State, local and miscellaneous taxes:	
Ad valorem	16,073,499
Income and franchise	2,430,476
Sales and use	543,251
Other	68,453
Total	19,115,679
TOTAL RAILWAY TAX ACCRUALS	70,019,854
Railway operating income	74,271,530

FIG. 2. A Complete Income

The Atchison, Topeka & Santa Fe Railway Company—System
Income Account (cont.)

	1951
Rent from equipment	$ 889,421
Joint facility rent income	1,366,841
	2,256,262
Hire of freight cars—debit balance	1,802,247
Rent for other equipment	570,085
Joint facility rents	2,542,350
	4,914,682
Net equipment and joint facility rents (Cr.)	*2,658,420*
Net railway operating income	71,613,110
OTHER INCOME:	
Revenues from miscellaneous operations	86,867
Income from lease of road and equipment	79,899
Miscellaneous rent income	586,087
Income from nonoperating property	110,963
Dividend income	7,591,075
Interest income	1,978,095
Release of premiums on funded debt	620
Miscellaneous income	282,988
	10,716,594
Total income	82,329,704
MISCELLANEOUS DEDUCTIONS:	
Expenses of miscellaneous operations	57,839
Taxes on miscellaneous operating property	5,118
Rent for leased roads and equipment	4,897
Miscellaneous rents	189,243
Miscellaneous tax accruals	414,456
Separately operated properties—Loss	31,958
Interest on unfunded debt	37,740
Maintenance of investment organization	1,378
Miscellaneous income charges	132,330
	874,959
Income before interest on funded debt	81,454,745
Interest on funded debt	8,108,967
Income balance carried to Profit and Loss	$ 73,345,778

Profit and Loss Account
to December 31, 1951

Balance brought forward from December 31, 1950		$579,536,147
Credit balance from income, as above		73,345,778
		$652,881,925
DIVIDEND APPROPRIATIONS OF SURPLUS	$28,052,180	

It will be noted that the income accounts of certain of the railroad's subsidiaries are consolidated with those of the parent company. However, the Western Improvement Co., a wholly-owned holding company owning a number of corporations engaged in the petroleum, water, and other businesses, is not consolidated, although statements of these companies are appended to the annual report of the parent railroad.

From a detailed income account of this kind, the investment analyst can recast the report of a railroad into a form comparable to that commonly used for industrial and public utility companies.

The balance sheet of a railroad is often of less significance for security analysis purposes than is the case in other industries, for the bulk of a railroad's investment is in fixed property acquired over a long period of years. More attention is now paid than formerly to cash and working capital position, for formerly it was assumed that a railroad could always step up its cash holdings by selling more bonds, whereas in recent years the emphasis has shifted to debt retirement. The Interstate Commerce Commission accounting rules governing railroad balance sheets differ from practice in other industries in that marketable corporate securities usually regarded as part of the working capital may be classified as "investments," and consolidation of accounts with those of subsidiaries is not compulsory.

A most important consideration in analyzing the investment position of a railroad is its funded debt maturities. If these are large over the next few years and net working capital is meager, ability to pay off maturing obligations will depend entirely upon the ability to refund. Should earnings be insufficient or the security markets disturbed, refunding may not be possible, so that reorganization or at least an extension of the maturity will become necessary. Debt maturities not only of the parent railroad, but also of vital subsidiaries, whether consolidated with the parent or not, must be considered.

Some railroad balance sheets may prove misleading for financial analysis purposes because they do not list guaranties of bonds and stocks of subsidiaries and other contingent obligations. These should be taken into account by the financial analyst in measuring the burden of fixed charges and debt maturities of a railroad system.

RAILROAD CAPITALIZATION.—Because of the huge amounts of capital that railroads must raise for investment in fixed assets, the industry has resorted to the sale of a number of special types of securities to facilitate financing. Apart from blanket mortgage bonds which today constitute the bulk of railroad indebtedness, branch and divisional line mortgages remain outstanding in considerable volume.

Branch line and divisional bonds vary in quality, depending on the earning power of the mileage covered. A mortgage on a short stretch of line which is of great value to the system may be a better security than a general lien on the whole system. In reorganizations, a number of divisional mortgages have been left undisturbed while general mortgages have been exchanged in part for income bonds and stocks. The relative position of a mortgage lien in a reorganization is determined by a segregation of earnings of each mortgage division, conducted under supervision of the I. C. C. For solvent railroads, the best available measure of the value of particular liens is the ratio of ton-miles per

dollar of debt for a given year, computed for all railroads by H. H. Copeland & Son, traffic density engineers.

Railroads have issued equipment and terminal obligations in large volume, reducing the cost of financing by giving liens on these essential assets. The vital importance of rolling stock in railroad operation has made equipment trust issues the premier investment security of the railroad industry. Having an effective lien upon locomotives and cars, equipment trusts have achieved a very nearly perfect credit record covering almost a century. Whether issued under a lease, the so-called **Philadelphia Plan,** or a conditional bill of sale, the **New York Plan,** holders of equipment issues can repossess the equipment involved promptly, free of other liens, in the event of default. Most significant is the fact that the Bankruptcy Act permits holders of equipment obligations to repossess equipment to which they hold title in the case of default, whereas owners of other obligations are enjoined from foreclosure pending formulation and adoption of a plan of reorganization.

Terminal obligations are liens on passenger and freight terminal properties. As with other mortgage obligations, actual foreclosure is not possible where a railroad applies for reorganization under the Bankruptcy Act, but the strategic value of the pledged property has nevertheless assured most terminal obligations quite favorable treatment in reorganizations. Terminal obligations guaranteed jointly and severally by two or more participating railroads have high credit rating because they are at least as good as a debenture bond of the strongest guaranteeing railroad.

Another characteristic group of securities found in the railroad industry are guaranteed bonds and stocks, mostly of leased lines. A number of railroads have expanded by leasing existing railroads, contracting to pay as rental interest on bonds of the leased lines and dividends on their stocks. This guaranty of interest or dividends may be endorsed upon the face of the bond or stock certificates.

Holders of guaranteed bonds or stocks can sue the guarantor for payments due in the event of default, like bondholders of the lessee corporation. But default usually accompanies filing of a petition to reorganize under the Bankruptcy Act. Where the trustee rejects a lease, as he may do in such cases, the lessee may be ordered to continue operation of the property, and any loss incurred becomes an obligation of the lessor's trustee coming ahead of its outstanding securities. Even if a lease is not rejected, a plan of reorganization may nevertheless provide for modification of its terms, and hence of the guaranties of bond interest and dividends on stock.

A lessor corporation must pay income tax on its net income, even though the dividends out of this net income are paid directly by the lessee to stockholders of the lessor. The determination of whether the lessee corporation must absorb this tax, so that the guaranteed dividend rate will not be impaired, is a matter of interpretation of the lease contract, and has given rise to considerable litigation.

Income bonds, on which interest is payable only when earned, appear frequently in the capitalization of reorganized roads. Their use has been approved by the I. C. C. to reduce the burden of fixed charges in times of depression, while giving bondholders of a bankrupt railroad a security senior to preferred stock and taking the form of a bond.

Public Utility Securities

Securities of electric, gas, telephone and telegraph, water, and traction companies are classified as public utilities. Railroads are public utilities in the legal sense, but their securities are classified separately because of regulatory, economic, and other peculiarities.

DISTINCTIVE FEATURES.—From an investment viewpoint, public utility companies are distinguished from other corporations in the following respects:

1. Public utilities must generally obtain from some political authority a franchise or the right to use a public highway or other public property for the performance of a public service.
2. They are localized in their operations, being confined, as a rule, to a limited area such as a municipality, county, or state.
3. They are largely operated as independent units. Unlike railroads they do not ordinarily interchange business on a large scale, use each other's equipment, or unite with each other in performing a single service for the public.

FRANCHISES.—The chief provisions of a public utility franchise, affecting directly or indirectly the investment standing of the utility securities, are:

1. The kind of service to be performed.
2. The duration of the franchise.
3. The exclusiveness of the right to perform the service permitted.
4. Territorial limitations in the performance of the service.
5. Restrictions and regulations regarding rates and charges.

A franchise may limit a utility company to a single service, such as supplying electricity, operating a telephone system, or running a street railway. As a rule, however, it is permitted to furnish the services that its equipment renders economically possible, even though the franchise does not specify some services. Thus, an electric light company may furnish electric power, and a telephone company may use its wires for the transmission of messages by telegraph. But a street railway, without special permission, is not permitted to operate buses or to furnish electricity for illumination, and a gas company cannot ordinarily use its conduits to furnish electricity.

A franchise may be limited as to duration, it may be perpetual, or it may be of indeterminate duration. Under a limited franchise a renewal by the political authority is required at the time the franchise expires. A perpetual franchise cannot be revoked, except for some breach of the franchise agreement. Under the "indeterminate permit," the political authority reserves the right to revoke the franchise under specified conditions. It is frequently provided that in the event of revocation the utility company is to receive compensation for its property, either from the municipality or from a successor corporation.

When a franchise is exclusive, the utility company receives a monopoly to perform the specified service within a prescribed territory. This eliminates direct competition and duplication of equipment, but it does not exclude indirect competition, such as may exist between a gas and an electric company, or between a street railway company and a bus

line. The present-day tendency of public authorities is to avoid duplication of services and wasteful competition by granting exclusive franchises or by refusing to grant additional franchises for the performance of a service that is or can be adequately supplied by existing public utility facilities.

A franchise is usually limited to a specified area, although in some cases the area is not definitely outlined. Thus, it may be limited to a certain section of a city, or it may extend throughout the jurisdiction of the municipality. Many street railways which were originally restricted to operating over certain streets or in a specified part of the city have, through mergers or the acquisition of other lines, come to cover a whole city and its surrounding territory. Gas and electric companies operate under a number of different franchises acquired by merger or acquisition, each confined to a limited area.

Early franchises sometimes fixed the rates which a utility could charge for its service. But rates are now set from time to time by regulatory agencies in nearly all states.

UTILITY RATES.—Like all monopolies, public utilities seek to charge not the highest possible rates for their services, but those that will yield the largest net income.

Utility rates must reflect (1) the value of the service, and (2) the cost of the service. The value of the service is what consumers can afford to pay for it; the cost of service is the cost of furnishing it, including a fair return on invested capital. Neither principle can be applied independently of the other. The cost basis of rate-making is impracticable if, under it, rates would be higher than the consumers can afford to pay. On the other hand, rates based on the "value of service" may be so high as to yield unreasonable profits at the public's expense. Utility rates cannot be based on an inflexible formula but should give a reasonable return on the capital invested and provide the public with service at rates consumers can readily afford to pay.

UTILITY VALUATION.—Adjustment of public utility rates is closely linked to the valuation of property used in performing the service. For many years, the courts sought to define a "fair value" for utility property as a base upon which a fair rate of return could be computed. In a number of decisions in the 20's, fair value was held to be chiefly present-day cost of reproduction, less depreciation, irrespective of original cost. This formula linked earning power of utility enterprises to the fluctuating purchasing power of the dollar, rather than to a fixed dollar return on the dollars invested. An investment in the common stock of a utility enterprise was thus treated on the same basis as an investment in other kinds of undertakings.

In recent years the original cost basis of utility valuation has come into the ascendancy. This theory would limit the rate base of public utilities to the dollars originally "prudently" invested in their property by the first person devoting it to public use. This view has prevailed in rulings of the Federal Power Commission in rate cases affecting companies subject to its jurisdiction, decisions of the Securities and Exchange Commission on issues of securities under the Public Utility Holding Company Act, and rulings by a number of state regulatory commissions that have been influenced by these federal agencies and the

Uniform Classification of Accounts issued by the National Association of Railway and Public Utility Commissioners.

The United States Supreme Court, in the Hope Natural Gas case, decided in 1944, virtually discarded the "fair value" rule for rate making. Instead of any rigid rate formula, the highest court ruled that "rates which enable the company to operate successfully, to maintain its financial integrity, to attract capital, and to compensate its investors for the risk assumed certainly cannot be condemned as invalid, even though they might produce only a meagre return on the so-called fair value rate base." Thus, the Supreme Court greatly widened the discretion given regulatory commissions in setting rates. This epoch-making decision said further: "From the investor or company point of view, it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include services on the debt and dividends on the stock. . . . By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. The return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital."

A concurring opinion by three justices of the Supreme Court in the earlier Natural Gas Pipeline case, decided in 1942, further clarified the revolutionary change in rate-making law as follows:

> . . . Since this case starts a new chapter in the regulation of utility rates, we think it is important to indicate more explicitly than has been done the freedom which the commission has both under the Constitution and under this new statute. While the opinion of the court erases much which has been written in rate cases during the last half century, we think this is an appropriate occasion to lay the ghost of Smyth vs. Ames, 169 U. S. 466, which has haunted utility regulation since 1898. This is especially desirable lest reference by the majority to "constitutional requirements" and to "the limits of due process" be deemed to perpetuate the fallacious "fair value" theory of rate making in the limited judicial review provided by the act.

Numerous state commissions have used prudent investment in one guise or another as a basis of rate rulings following these Supreme Court decisions.

COMMISSION REGULATION.—While the Federal Power Commission, the Securities and Exchange Commission, and, in the case of communications companies, the Federal Communications Commission have limited regulatory authority over public utilities, state commissions set up in most states have the widest powers of regulation. The commission's authority differs from state to state. It usually embraces (1) franchises, (2) rates and services, (3) security issues, and (4) accounts and reports.

When the earnings of a public utility company rise to a level that is believed to yield substantially more than 6% upon the prudent value of its investment, a number of commissions, or municipal authorities in the states where state-wide regulation is not provided, will order a rate investigation or require rates to be reduced forthwith. If the demand for service is expanding at a rapid pace, however, a rate reduction

may not lower earnings immediately, for the expansion of sales may offset the cuts in rates.

The attitude of the state commission is particularly important in the investment analysis of utility securities, now that the courts are disinclined to overrule their rate decisions, as we have seen above.

ANALYSIS OF A UTILITY COMPANY.—In analyzing the position of an individual public utility for purposes of investment, prospective earning power is the primary consideration, as with other securities. The chief items to be taken into account are:

1. Present and future demand for the service.
2. Franchise, rates, and other regulatory factors.
3. The load factor.
4. Character of the physical plant.
5. Capitalization.
6. Reported earning power.

The **demand for service** is not a serious question for a company serving a community with a large, heavily concentrated population. But a company serving a thinly populated area, especially one with scattered communities, may find extension of transmission lines and gas mains quite costly in relation to the number of new customers to be acquired. Competition from other services and other fuels must be taken into account in appraising potential demands for utility service.

Throughout their history, with very few exceptions, public utilities other than traction and manufactured gas companies have enjoyed an expanding demand for their services. But increased sales require a larger investment, and there have been times when a relatively low rate of return has been secured from capital invested in expansion.

Details about the **franchises and rates** charged by public utility companies are available in the financial services. The fact that a franchise expires within the near future may or may not be a serious matter, depending upon the attitude of the franchise-granting authority. Expiration of a franchise may give an occasion for agitation for public ownership. Where voters approve the acquisition of a utility by a municipality or power district, payment equal to original cost or better can normally be expected, but this may mean a loss to common stockholders where the shares have been quoted at higher levels.

The fact that the rates charged, especially for residential service, are higher than those charged by neighboring companies may make a company vulnerable to rate reductions. However, relative rates must be checked against the return realized on the rate base. Furthermore, where a utility charges relatively high rates but lower than those charged by adjoining companies, there may be less pressure upon it for reductions.

Certain communities share operating economies achieved between consumers and utility companies, which may result in a high rate of return.

Competition from public power projects, and the attitude of public authorities towards the sale of their power for private distribution, largely affect the position of utilities in adjacent areas. The attitude of the community towards municipal or district ownership is also quite important.

The **load factor** may affect earning power substantially. A utility is required to have capacity adequate to meet the maximum demand for its service at any time. This maximum is the **peak load.** Actual output in a given period, such as a month or year, divided by what would have been produced at continuous peak load operation, is the load factor. Thus, if the peak load of a manufactured-gas company is 100,000 cubic feet per hour, the company would produce 72,000,000 cubic feet in a month to turn out its peak load continuously. If it actually distributed 24,000,000 cubic feet during a month, its load factor is 33⅓% for that month. The higher the load factor, other things being equal, the more profitable the operation, for plant capacity is idle a lesser percentage of the time.

The **character of the plant** is important as an indication of its adequacy for future expansion and the need for replacements. An engineering study of the character and condition of plant and equipment, usually prepared by engineers in connection with a new security offering, offers valuable guidance to investors. The Federal Power Commission, under its uniform system of accounts for utilities, has required public utilities subject to its jurisdiction to report write-ups of property values, both direct and those resulting from the purchase of property above its original cost. Direct write-ups (Account 107) are to be written off directly against surplus, while purchase write-ups (Account 100.5) are to be amortized in most cases over a 15-year period against earnings. State commissions have varying requirements as to eliminating write-ups of property values. In some states, part of the write-ups may be retained in the rate base.

Generally speaking, the investment in plant and equipment of an electric, gas, or telephone company should not exceed 5 times the annual operating revenues. Utilities should have a retirement reserve of over 15% to cover replacements with a moderately lower percentage for hydro-electric properties.

Regulatory authorities, both federal and state, have sought to maintain a reasonable balance between bond and stock **capitalization** of public utilities, to avoid the excessive fixed charges which have plagued railroads. The S.E.C. has favored a capital structure for an operating company that comprises 50% debt, 20–25% preferred stock, and the balance common stock. Where the common stock equity is less than 20% of total capitalization, the Commission has restricted dividend payments by operating companies being separated from parent holding companies to 50% of available earnings. Where the common equity was less than 25%, dividends have been restricted to 75% of earnings available. Such restrictions lapse, needless to say, when the common stock equity reaches the specified percentage of total capitalization through reinvestment of earnings or through the sale of new common stock.

Analysis of the **earning power** of a public utility must take into account both regulatory and economic factors. If earnings are substantially above the fair return rate on the rate base, they are vulnerable regardless of economic considerations. However, regulation, it must be remembered, tends to place a ceiling over earnings, but not a floor under them. If earnings fall below a fair return level, it is ordinarily quite difficult to get rate increases to boost them.

The basic economic factors governing utility earning power are the demand for service and the cost of providing it. Industrial and commercial demand reflects business conditions, while residential demand is largely influenced by employment and national income. The cost of providing service is affected by wage changes, fuel costs, and taxes. Hydro-electric plants are virtually unaffected by wage and fuel levels, but taxes, both local and federal, affect earnings of all utilities alike.

Depreciation charges are an important factor in the operating expenses of most utilities. For most electric light and power companies, depreciation now averages about 2½% of fixed assets, but only 1½–2% for hydro-electric installations. Maintenance averages about 5% of operating revenues, but considerable variation exists. The S.E.C. in many cases has considered 15% of gross revenues a minimum for depreciation and maintenance deductions.

Because overhead costs form a large part of total operating expenses, public utility earnings are quite sensitive to changes in gross receipts. They rise readily with increases in revenues but can decline rapidly when receipts fall off.

The operating ratio of expenses, including depreciation and amortization, to revenues for a company producing power from steam usually runs around 65%, and for hydro-electric companies, 50%. For manufactured gas companies, the operating ratio should be within 80%, and for telephone companies less than 80%. A well-run, well-capitalized electric utility will have fixed charges equal to less than 12% of operating revenues, and these charges should be earned twice. Gas companies' fixed charges should not exceed 15% of operating revenues, and similarly should be earned twice. Low interest rates have greatly helped utilities to reduce fixed charges and strengthen coverage of interest charges.

Earnings of public utilities have an unusual degree of stability. This is an outstanding investment characteristic of the industry.

STATISTICAL UNITS.—For analysis purposes, a number of statistical units applicable to utility operation are employed. For an electric company, kilowatt-hours are used; in a gas company, the cubic foot of gas; in a street railway, car-miles and passengers carried; in a telephone company, the telephone call and telephone station. As conditions of operation vary greatly among utilities, the use of statistical units to measure efficiency and profitableness of the enterprise requires the utmost caution. Changes in physical equipment and in the demand for the service may invalidate the standard units used as a basis for investment judgment.

CLASSES OF PUBLIC UTILITIES.—Public utilities are usually classified by the services performed. The principal classes are: (1) electric light and power companies, (2) gas companies, (3) telephone and telegraph companies, (4) electric railways, (5) water works, (6) natural gas pipe lines. There is also a miscellaneous group which includes steamship companies, heating companies, and motor bus operators. A number of utilities own franchises for the operation of two or more services, and additional services may be acquired through the purchase of other utility companies or through holding companies. The Public Utility Holding Company Act of 1935 has tended to limit operations more and more to one type of service.

ELECTRIC LIGHT AND POWER.—These companies have expanded more rapidly than any other class of public utilities. Electric companies may be divided into two classes: (1) those operating with steam plants, using coal, oil or natural gas for fuel; and (2) those operating with water power, known as hydro-electric plants. Many companies use both methods of generating electricity. Hydro-electric plants require, as a rule, a larger investment of fixed capital than steam plants, though their operating costs, aside from depreciation, are correspondingly less. Since the hydro-electric installations are for the most part located at points distant from the market for the service, a heavy investment in high-tension transmission lines is required. As a matter of fact, the major portion of the cost of electric service is in transmission and distribution, regardless of the manner in which energy is produced.

The electric light and power industry has been expanding rapidly. World War II opened the way for many new uses for electricity. Development of electronic devices, for example, will require large quantities of power, especially in the use of high frequency heating. Production of plastics and synthetics involves heavy use of power, as does aluminum and magnesium manufacture. Household use of electricity has expanded rapidly with growing electrification of the home, and such business is the most profitable and stable available to utilities.

Competition from public power projects is noteworthy, but it has represented no serious threat to date. Existence of public projects is not cherished by the privately owned companies, for, being government owned, they do not have to earn a profit and are in position to charge very low rates. This, in turn, forces the surrounding private utilities to lower their rates. The result is usually that the public authority buys out neighboring distribution companies, as in T. V. A., and private companies buy power from the public body instead of expanding their own generating facilities.

Potentially more dangerous is the move toward public ownership of existing utilities, which seems advantageous because the properties, once publicly owned, enjoy tax exemption. Municipalities and power districts have acquired a number of electric light and power companies. In Nebraska, all the public utilities are now publicly owned. Municipalities and power districts can finance such acquisitions, and the further expansion of these properties, by the sale of tax-exempt bonds.

GAS COMPANIES.—Following the advent of electric illumination, the growth of gas companies slackened, gas being important chiefly as a fuel for cooking. But its use for home heating, a source of fuel for the operation of refrigerators, and in industry has been growing rapidly. Over three-fourths of the revenues of manufactured-gas companies, and half the revenues of natural-gas companies, come from residential sales.

Gas companies are divided into two classes: (1) those supplying manufactured gas, produced from coal or oil; and (2) those supplying natural gas. Use of natural gas, formerly restricted to localities adjacent to natural gas fields, has extended over wide areas through the construction of long distance pipe lines. Natural gas from the Kansas, Oklahoma and Texas oil fields is now transmitted to Chicago, St. Louis, Cleveland, Washington, D. C., and other leading cities. Extension of natural-gas pipe lines may lead to the abandonment of many manufactured-gas

plants, although these may be retained as standby plants in the event of failure of the natural gas supply. Where natural gas is carried long distances by pipe line there is always the possibility of a break in the line, which will interrupt the flow. It is practicable to mix natural and manufactured gas, where both are available. Introduction of natural gas has brought a sharp reduction in rates which has stimulated consumption.

TELEPHONE AND TELEGRAPH COMPANIES.—The telephone industry enjoys rapid growth, which has helped it to absorb higher costs, especially wage increases, so that applications for rate increases have been relatively infrequent. Because of its nature, it is largely under single ownership.

The American Telephone and Telegraph Co. is the dominant factor in the telephone business in the United States. The A. T. & T., or Bell System, is made up of 24 operating companies that do about 90% of the nation's telephone business and control about 80% of the telephones. There are over 7,000 independent telephone companies in the United States, but the 20% of the telephones which they control account for only 10% of the business.

American Telephone and Telegraph owns the long-distance lines as well as its operating subsidiaries. A. T. & T. also is sole owner of the Western Electric Co., which manufactures instruments and other equipment for all the Bell System companies. A new source of revenue which has developed for the Bell System in recent years is the growth of nationwide radio networks requiring long-distance lines. The Bell System has done extensive research in television.

The telegraph business, also under one ownership, has been adversely affected by telephone and radio competition and high costs.

The Western Union Telegraph Co. has a monopoly in the domestic telegraph field since its merger with the Postal Telegraph Co. Radio and air mail development clouds the industry's future.

ELECTRIC RAILWAYS.—Electric railways comprise both local street railway systems and interurban lines. The investment in these interprises increased very rapidly in the period between 1890 and 1910, but since then, owing to the expanding use of the private automobile and the motor bus, many lines have been abandoned or motorized. In large cities where street railways are still required, municipal ownership has made headway. Improved types of equipment have helped some companies to maintain earning power.

WATER WORKS.—Although originally operated as private business enterprises, water supply systems are now largely owned and administered by municipalities. There are a few systems which are still privately owned, however. These companies enjoy marked stability of earnings.

PIPE LINES.—Originally built to transport crude oil to refineries, there has been extensive construction in recent years of pipe lines for the transportation of natural gas. Major pipe lines to carry natural gas from the Southwest to consumption centers have been built. The Federal Power Commission, which regulates rates, has aggressively sought reductions to hold earnings to a fair rate of return on the investment.

PUBLIC UTILITY HOLDING COMPANIES.—Holding companies played a major role in the development of the utility industry, providing capital, centralized management and improved technology. Abuses that developed among them, however, led to the enactment of the Public Utility Holding Company Act of 1935, which provided both for the regulation and the dissolution of utility holding companies subject to its provisions.

The regulatory provisions apply to security issues of registered holding companies and their subsidiaries, mergers and property acquisitions, sales of property, service contracts, and the use of proxies. The famous "death sentence" requires simplification of the intercorporate and capital structure of a utility holding company system, and limits each system to one integrated area. Wholesale dissolution of holding companies has occurred under this provision. The United States Supreme Court in 1946 upheld this law. Referring to the holding companies, the decision said: "These structures in and of themselves have been found by Congress to constitute an evil that cannot be met by simply regulating future transactions. Congress, in the exercise of its discretion, has decided that it is necessary to reorganize the holding company structures. And inasmuch as it has the constitutional power to do so, we cannot question the appropriateness or propriety of its decisions."

Industrial Securities

NATURE OF THE INDUSTRY.—Since the category of industrials embraces every type of corporate enterprise except railroads, public utilities, and financial corporations, it comprises a very wide variety of businesses. While the basic principles of investment analysis are the same in each case, their application varies with the character of the business.

The major classes of industrial concerns are:

1. Mining, petroleum, and other extractive enterprises, dependent upon natural resources, the supply of which is usually limited.
2. Manufacturers of consumer nondurable or "soft" goods, including textiles, foods, and tobacco.
3. Manufacturers of consumer durable or "hard" goods and building materials.
4. Manufacturers of industrial raw materials like metals, chemicals, and leather.
5. Manufacturers of producer durable goods such as railway, electrical, and industrial equipment.
6. Wholesale and retail distributors.
7. Service industries like bus and air transport which often have public utility characteristics.

Numerous concerns diversify their activities, so that they manufacture and sell products falling in two or more of the classifications given above. Thus a railway equipment manufacturer may turn to producing household equipment, or a chemical manufacturer may produce foods.

In considering an industry falling within each of these groups, the investment analyst will consider (1) the long-term trend of the industry; (2) competition within the industry and from other products

or services; (3) prospective technological changes and their impact upon earnings; (4) labor factors; and (5) how sensitive the industry is to the business cycle. Thus steel is an industry that has long passed its rapid growth phase, meeting competition from other metals and plastics which may be intensified by future technological changes. It is also very sensitive to the business cycle. On the other hand, steel is so cheap as compared with its competitors and enjoys so wide a variety of uses that for a long time to come an era of general business prosperity will necessarily imply a heavy demand for steel products, with corresponding large sales for steel manufacturers. Wages constitute a large proportion of the cost of steel, which makes the industry quite sensitive to wage increases as compared with, say, the petroleum industry, in which the wage element is a much smaller proportion of total cost.

DATA FOR ANALYSIS.—The investment analyst has many sources of data to help him in analyzing industrial securities. The company's annual and quarterly earnings reports are the most important, although financial statements in fuller form are available in registration statements filed by companies whose securities are listed. These statements can be consulted at the stock exchange where the security is listed, or at the office of the Securities and Exchange Commission in Washington, D. C., where registration statements covering newly issued securities also are on file.

Statistical, economic and financial data for particular groups of corporations may also be secured from government publications, trade publications, financial and business sections of newspapers, and from studies issued by financial houses. Corporate officials may disclose significant information at annual and special meetings of stockholders, in newspaper interviews, or in personal interviews with investors, particularly larger stockholders.

FACTORS OF ANALYSIS.—The security analyst is interested in six major factors in appraising the value of an industrial security. These are:

1. Prospective earnings.
2. Working capital position.
3. Accounting peculiarities.
4. Capital structure.
5. Dividend prospects.
6. Special factors that may affect the value of the security in the future.

Prospective earnings are usually the most important, for security prices tend to reflect primarily the future earning power of the enterprise, rather than past or current performance. Prospective earnings in turn reflect:

1. Sales prospects.
2. Selling prices.
3. Costs.

SALES PROSPECTS.—Prospects for sales volume will depend upon the company's position in the industry, the outlook for the industry, competition, development of new products, etc. A number of cor-

porations are classified as "growth companies," because the demand for their product is growing, giving them gains in sales from year to year interrupted only temporarily, if at all, by business recessions. On the other hand, in older industries the long-term trend may be downward because the demand for the company's products is contracting due to competition from rival products, exhaustion of raw material reserves, or changes in consumer preferences. Industries quite sensitive to the business cycle show wide changes in sales volume from year to year, which makes the stocks of such concerns attractive for speculation when bought during depression periods, since sharp gains in sales may be anticipated once the business trend turns upward.

In each industry, there are indications of future sales changes. Thus, an increase in farm income augurs well for mail-order company sales. Greater industrial activity means heavier coal and oil consumption.

Prospects for **selling prices** may be as important as the sales outlook in influencing future earning power. Higher selling prices widen profit margins without adding to costs, while price cutting often reduces profits drastically. Competition, anti-trust law prosecution, technological changes, marketing policies, and tariff changes can all affect prices charged for a company's products. Thus, a company shifting from direct selling to sales through jobbers may have to reduce its selling prices, although this may be offset by a simultaneous slash in marketing expense. An oil company selling in foreign markets may be adversely affected by the discovery of new petroleum deposits in or near that market, from which low-priced oil can be sold to the same customers.

COSTS.—Future earnings may be influenced as much by changes in costs as by any other factor. Changes in raw material prices, in technological processes, in wage rates, and in taxes all affect costs. Periods of rising prices usually mean larger profits, for the higher value of year-end inventories reduces the cost of goods sold, unless accounting methods are adopted which prevent inventory changes from affecting earnings. Conversely, declines in commodity prices lead to smaller profits because reduced year-end inventories increase the cost of goods sold.

Costs are also affected by sales volume. When sales are large, overhead and even direct cost per unit of product tend to be reduced. Conversely, a reduced volume of turnover nearly always means higher costs per unit.

An extreme case of this is found in the air transport industry, where the cost of operation of a smaller plane is not much less than that of a large transport. On the other hand, the revenue per plane-mile may be almost twice as great in the larger plane, sharply reducing the cost per passenger-mile carried.

The investment analyst must constantly be on the lookout for developments that change costs, and so affect profits. A succession of small tobacco crops, for example, will raise the price of tobacco and so narrow profit margins in the cigarette industry, unless cigarette prices can be raised correspondingly.

In some cases, expenses may be increased in anticipation of larger sales in the future. Thus, an oil or natural gas company may spend large sums of money upon developing a new pool, but the revenue from this development will not be realized for some time to come. Similarly, an aircraft manufacturing company may incur heavy costs in perfecting

a new model, sales of which will take place only in the future. When costs increase because heavy development expenses are being incurred for future production, this is not to be considered in the same light as a rise in costs on the existing output.

WORKING CAPITAL POSITION.—The investment value of a security is affected by the working capital position of the issuer, as well as the latter's prospective earning power. With a strong working capital position, the investment status of the stock of a company may be maintained even if earnings decline temporarily. On the other hand, where working capital is impaired, larger earnings may have to be devoted to replenishing current assets, so that the price of the stock may not discount the increase in earnings. Where a corporation has a very strong working capital position, it may use these funds to buy other properties to build up earnings, or to pay out liquidating dividends that will enhance the value of its stock.

A large investment in inventory may be a factor of weakness, particularly when commodity prices are weak or style changes occur. Heavy receivables also may cause loss when commercial failures run high.

The liability side of the working capital position is very important where payables run high. Even an enterprise with substantial earning power may be embarrassed by large maturities of bank notes and other debts that cannot be met conveniently, especially during periods of weakness in the security markets.

ACCOUNTING PECULIARITIES.—Accounting practices vary greatly among industrial concerns, since they are not subject to federal or state regulation as is the case with railroads and public utilities. Some enterprises, particularly those where heavy research or other outlays build up valuable intangible assets, may be said habitually to understate earnings. Others that do not make adequate provision for depletion or depreciation may be overstating earnings.

The investment analyst cannot take corporate income accounts and balance sheets at face value. He must first learn the accounting methods pursued in each case and interpret reported figures accordingly. This is particularly so where figures for two or more corporations are to be compared. Thus, an oil company that deducts drilling and development expenses as incurred reports earnings on an entirely different basis from one that capitalizes such outlays and writes them off over a period of years through depletion deductions. This fuller investigation of the accounting peculiarities encountered in corporate statements requires the procedures and techniques of financial statement analysis.

CAPITAL STRUCTURE.—While the capital structure of most industrial companies is far simpler than that of railroads and public utilities, some concerns have two or more classes of securities outstanding. The heavier the senior capitalization of bonds and preferred stock, the less strong is the investment status of the common shares. This is the more true where senior issues are participating or have heavy sinking funds. Large bank loans or other short-term debts undermine the position of all other securities, where there is any question of the ability of the enterprise to pay such obligations as they fall due.

Where corporations have subsidiaries, it is important to learn whether or not their liabilities are shown in a consolidated statement. Practices

in consolidating parent and subsidiary corporation statements vary widely, and the method used in any one case may largely affect the results.

DIVIDEND PROSPECTS.—The price-earnings ratio of an industrial security is often influenced considerably by the proportion of earnings paid out as dividends. Stock of a corporation earning $2 per share of common and paying out 50¢ a share is likely to sell substantially lower than the shares of an enterprise that earns $2 a share but pays out $1.60. Prospective dividend changes can cause wide anticipatory market price changes.

Closely related to dividend changes are stock dividends, split-ups, and offerings of subscription rights. Each of these may cause substantial price fluctuations.

SPECIAL FACTORS.—The competent investment analyst will not be satisfied after he has weighed the five factors mentioned, for other considerations may play a dominant role in determining market values.

In wasting asset industries such as mining and petroleum production, proven reserves may be the chief determinant of value. Even large current earnings and a strong working capital position may be of limited significance if the ore reserves of a mining company will be exhausted in the near future. On the other hand, huge ore reserves may make the stock of a mining company quite attractive even if current profits are meager.

A company that possesses a new patent or process of value to an industry may be in position to secure large royalty income, even if its own operations are not profitable. There have been a number of instances where such patents constituted the chief asset of the business, and where the value of the stock issue depended upon the outcome of litigation arising from these patents. Needless to say, such stocks are quite speculative at best until the patent uncertainties have been resolved.

A change in the accounting methods employed may affect earnings, and therefore stock values. When motion picture companies found it necessary to write off the cost of films within a shorter period of time some years ago, for example, profits dropped and share prices were depressed. Conversely, when air transport companies were unable to secure new planes during World War II, after their equipment had been written off entirely, depreciation charges tended to disappear and profits to rise sharply.

A new statute or government regulation may become a major investment factor at times. When the Interstate Commerce Commission ordered railroads to install automatic train control some years ago, this meant a large volume of business for concerns manufacturing such equipment. Securities of the alcoholic beverage industry and others subject to severe regulation may be profoundly affected by regulatory changes. New tax legislation may be the dominant factor affecting security values at times.

RATIO ANALYSIS.—Ratios helpful to the security analyst can be worked out for each industry, primarily for comparative analysis. One of the most common is the ratio of output per share of stock outstanding. Thus, stocks of petroleum-producing companies can be compared

on the basis of barrels of current annual production or barrels of proven reserves per share outstanding. Steel stocks can be compared by taking tons of productive capacity per share.

Such ratios must be used with great care, for production costs may be more important than the volume of output in determining profits. If the cost of producing a barrel of oil is half as large for one company as for another, the fact that it turns out fewer barrels per share will not prevent it from showing larger profits.

The ratio of depletion and depreciation charges per share is indicative of the sums set aside for replacement of assets before reporting profits per share. Where such reserves are high on a per-share basis, it indicates ultra-conservative accounting, and tends to offset the fact that smaller earnings are reported per share.

Financial Securities

Securities of financial enterprises are peculiar in that assets of these institutions consist mainly of marketable securities and loans. Hence, book value is far more important in determining value than in the case of other corporations, for financial corporations can liquidate in whole or part without much difficulty. At the same time, it should be recognized that managements usually do not desire to liquidate, even where outstanding securities sell well below book value, so that earning power may prove more important than book value in influencing the selling price of securities of financial corporations, as with others.

BANK STOCKS.—By far the most important group of financial securities are bank stocks. Investment analysts face a particularly difficult task in appraising the value of many bank shares because of the paucity of information given in annual and other reports. The Comptroller of the Currency requires national banks to publish condition statements 4 times a year, and state bank superintendents impose similar requirements upon state-chartered institutions. But the individual bank possesses wide discretion as regards the valuation of assets for condition statements. In fact, so long as assets are understated or left out of the balance sheet entirely, the regulatory authorities interpose no objections. They do not regard it as their function to require accurate accounting for investors—they are concerned only with the safety of the funds of depositors. Similarly, banks do not publish detailed earnings statements, as do other corporations of similar size.

Because of the highly liquid character of bank assets, book value is of major importance. **Reported book value** is readily determined from the condition statement, as the bank's balance sheet is called. However, **actual book value** often varies quite widely from the figure reported. Securities are usually carried at cost less a reserve built up out of the sale of investments at a profit. When bond prices are high, the market value of investments may be substantially in excess of the figure carried on the books. Loans may be written down below probable recovery figures. Real estate, whether bank premises or properties acquired through foreclosure, also may be carried at figures varying widely above or below current market values. Many bank managements like to accumulate **hidden reserves,** usually by carrying certain assets far below their true worth, for emergencies.

Banks derive their earnings from two main sources—interest on investments and loans and service charges for trust, foreign exchange, and other services rendered customers. Banks customarily report operating earnings from these two sources, and deduct their expenses. In addition, gains may be derived from sales of investments above cost and from recoveries on assets that have been written off in the past. Also, operating earnings are reduced by write-downs of assets and realized losses on investments. Since the management of a bank has a large measure of discretion over the timing of recording such gains and losses, the investment analyst may not know about them until they are reported. It may be necessary to call upon the officials of a bank or to ask questions at the annual meeting to secure such information, and it is often unavailable even through such channels.

Banks pay relatively small dividends as a rule in relation to earning power, because the ratio of capital, surplus, and undivided profits to deposits has declined sharply with the great deposit expansion of recent years. Because of the need for expanding bank capital, the Treasury has not put pressure upon banks to pay out larger dividends by applying section 102 surtax to them. This makes bank stocks attractive as a group to investors in the high-income brackets, for they can count upon capital gains through sale of such shares after they have appreciated in value because of the reinvestment of earnings over a period of years.

Ratios commonly used in analyzing bank stocks are the ratio of book value to market price, earnings per share, deposits per share, and earning assets per share. In comparing these figures for different banks, the wide variation in the basis on which assets and earnings are reported must be kept in mind.

INSURANCE STOCKS.—Since most life insurance companies have been mutualized, insurance stocks are chiefly those of fire, casualty, and marine insurance companies. An insurance company is actually a dual enterprise—it receives premiums and pays out expenses and losses in its insurance business, and it invests its reserves in securities and mortgages like any investment institution. Often a loss is incurred from insurance underwriting, but this may be offset and a profit realized by application of investment income. In years of small losses or in companies that select risks carefully, a profit may be secured from both sources.

Underwriting experience may determine whether insurance stocks sell above or below their book value. Also, as in the case of banks, actual book value may vary considerably from that reported because investments are carried below or above current market prices, or because of the basis upon which reserves are computed.

A typical statement of a fire insurance company is as follows:

Assets		Liabilities	
Cash	$ 693,439	Capital Stock	$1,000,000
Bonds	545,554	Accounts Payable	65,747
Stocks	1,256,414	Reserves:	
Mortgages	101,500	Unearned Premiums	666,493
Accrued Interest	23,254	Losses	81,506
Premiums Uncollected	303,420	Taxes and Others	37,863
Other Admitted Assets	7,042	Surplus	1,079,014
	$2,930,623		$2,930,623

On the asset side, the principal items comprise the investments of the company, consisting of bonds, stocks, and mortgages. Certain assets, such as furniture, fixtures, maps, advertising material, and the like, are excluded (nonadmitted) by the State Insurance Department on the ground that they cannot be readily liquidated and have but a nominal cash value.

The largest and most characteristic item among the liabilities is the unearned premiums, or unearned premium reserve, sometimes called the reinsurance reserve. Insurance premiums are paid in advance and the unearned premium reserve represents the company's liability for protection for which the policyholders have not as yet received the benefit. If a one-year policy has run for 4 months up to the date of the balance sheet, one-third of the premium has been earned and two-third remains unearned. A liability equal to two-thirds of the premium will consequently be shown in the balance sheet. The unearned premium reserve is thus prepaid income.

The item, reserve for losses, among the liabilities represents the estimated amount of losses actually incurred for which the company is liable to policyholders, but for which it has not yet indemnified them. The estimate usually is 15% or so in excess of the actual losses.

Capital stock and surplus combined are technically known as the surplus to policyholders. Constituting the company's net worth, their amount to a large extent determines the amount of unearned premium liability it can incur. Liquidating value is sometimes computed as the capital, surplus, and 40% of the unearned premium reserve.

OTHER FINANCIAL STOCKS.—Investment trust and credit company stocks are the other major groups. Investment trust securities, which are appraised chiefly on the basis of book value, are discussed in the section on savings institutions. Credit companies include sales finance companies, small loan companies, factors, and industrial banks. As with commercial banks, book value is an important analysis factor in view of the liquid character of the assets, but earning power is usually the chief factor determining value because of the high rate of interest charged on advances.

State and Municipal Bonds

TAX STATUS.—The investment position of state and municipal bonds is greatly affected by their tax status. Interest on such obligations is exempt from federal income taxation, a fact that has been of greatly increased value as federal income tax rates have risen. Most states exempt from taxation their own bonds and those of their political subdivisions.

While the tax-exempt status of state and municipal bonds has been criticized and proposals have been advanced for its abolition, the consensus is that only a Constitutional amendment could actually bring this about. And since state legislatures are unlikely to give the requisite approval to such an amendment, it is very doubtful that the tax status of state and municipal bonds will be modified.

While the Constitution does not specifically exempt bonds of the states and their political subdivisions from federal taxation, the United States Supreme Court held long ago in the celebrated case of McCulloch

v. Maryland (4 Wheaton 316) that the State of Maryland could not tax the bank notes of the Bank of the United States, an instrumentality of the federal government, because "the power to tax is the power to destroy." The doctrine of reciprocal tax exemption—that the federal government shall not tax obligations of the states and their subdivisions, and that the states shall not tax federal obligations, has been evolved from Chief Justice Marshall's decision in McCulloch v. Maryland. But this does not prevent a sovereign government from taxing its own obligations, as the federal government does, nor does it prevent a state or city from taxing bonds issued by other states, or cities in other states.

The value of the tax exemption enjoyed by bonds of states and their subdivisions varies with prevailing income tax rates. Investors in the high-income brackets are in position to derive the greatest advantage from such tax exemption. Other investors holding such bonds must remember that they are accepting a lower yield without obtaining the full tax benefit upon which such lower yield is based. Corporate investors can measure the tax benefit they receive from the corporate income tax rate to which they are subject.

To guide investors in determining whether they are justified in purchasing tax-exempt bonds instead of bonds subject to tax, tables are prepared showing **equivalent taxable yields** at various rates of return. For example, an investor in the 40% income tax bracket who buys a municipal bond on a 1.80% yield basis obtains a yield comparable to that which he would realize on a 3% corporate bond. Municipal bond houses prepare tables showing equivalent taxable yields derived from municipal bonds at various yield levels for corporations and individual investors in different tax brackets.

STATE BONDS.—State bonds are similar to national government bonds in that individuals and corporations are not legally permitted to sue states without their own consent. Bonds of states generally enjoy a high standing, despite this immunity to suit. Many states have adopted constitutional provisions regulating the purposes for which indebtedness may be incurred. The use of state credit is now generally prohibited for private benefit. Road construction, parks, welfare institutions, relief, and veterans' bonus are major purposes for issuing state bonds.

Because of the clause in the federal Constitution which prohibits a state from passing legislation impairing the obligation of a contract, a state cannot repudiate or alter the character of a debt validly incurred. But this gives no actual protection to bondholders in the absence of the ability to sue a state for repudiation.

TAXING POWER OF STATES.—As the credit of a state is based primarily on its tax resources, its taxing powers and the wealth within its territory are of supreme importance in judging the soundness of its obligations. A state cannot tax property without due process of law, nor can it interfere with the taxing powers of the federal government. With these exceptions, and allowing for tax-rate limitations imposed by their own constitutions which can of course be removed by amendment, states are free to tax without restriction to service their debts.

Important ratios in the analysis of state bonds are per-capita debt, ratio of debt to assessed property value (taking assessment methods into

account), and the percentage of state receipts required for debt service. If a state borrows beyond the powers of its citizens to pay, it may default on its debt service. In such situations, it may first apply its revenues to maintain its governmental functions before meeting any of its indebtedness. Hence, state debt should bear a reasonable relation to the taxable property and taxable income of the state. A state may tax its own obligations held by its residents, provided the tax is not discriminatory and does not amount to an impairment of the debt contract. Thus, a state cannot levy a tax for the purpose of reducing the interest rate payable on its own obligations.

MUNICIPAL BONDS.—Municipal bonds may be classified by the political character of the issuer as (1) county, city, town or village; (2) special tax district; or (3) authority bonds. More important from the investment standpoint is the distinction between (1) general obligations for which the full faith and credit of the municipality are pledged, and (2) limited obligations, which comprise special assessment and revenue bonds.

While judgments may be secured against municipalities that default on their obligations, this is ordinarily of little value to the bondholder because the courts in most states will not permit attachment of municipal property required for the public service. Hence, holders of such obligations must depend upon the ability-to-pay of the municipality, as shown by its budget, taxing power and the value of the property upon which it may levy taxes, and upon its good faith as reflected in its debt record. It is also important to check upon the validity of the bond issue, for any legal irregularity may result in the inability of the bondholder to obtain payment. Municipalities may file plans for composition of debts under the Municipal Bankruptcy Act.

It must be remembered that municipalities overlap to a large extent. Counties, townships, cities, tax districts, and special assessment districts may embrace the same taxpayers. The financial troubles of Chicago during the early 30's were accentuated by the multiplicity of taxing authorities formed to cover the same area. Hence, the investment status of a municipal bond is largely affected by the debt incurred by overlapping political subdivisions, and statistics of debt and tax burdens should include all overlapping tax districts.

The quality of municipal bonds varies widely with the economic character of the community, its population, its wealth and income, and the financial competence of its administration.

TAX DISTRICTS.—Special tax districts are generally created for a single governmental purpose, such as school districts, water districts, drainage districts, and road districts. These districts, for purpose of bond analysis, may be classified into two groups: (1) those which are permanent and created for a continuous specialized administrative purpose, and (2) those which are more or less temporary and are formed to provide a single public improvement. The most numerous of the first class are the school districts; of the latter, irrigation, drainage, levee, and similar districts. Limitations upon municipal indebtedness imposed by state law have encouraged creation of tax districts.

SPECIAL ASSESSMENT BONDS.—Improvements which affect only parts of a municipality are sometimes financed through special

assessments upon the property affected, and bonds are issued against these assessments. Such bonds are usually inferior to general obligation municipal bonds, due to the limited source of revenue available to provide debt service. But funds may be provided by the municipality if collections from the special assessments do not suffice to service the bonds, where provision is made for such contributions in the enabling legislation.

REVENUE BONDS.—An increasingly important group of bonds which enjoy tax exemption like other state and municipal obligations are revenue bonds. Such obligations are serviced from the revenues of publicly owned facilities rather than taxes. They are issued by states, municipalities or authorities or districts set up by state law.

Originally issued for bridges and toll highways, large issues of revenue bonds have been put out in recent years to finance public ownership of electric light and power, transit, and other public utility properties. Because they are not subject to federal income taxes, because in most states they can raise rates without approval of regulatory commissions, because interest charges are low due to their tax-exempt status, and because they operate as a rule without competition, public bodies that issue revenue bonds for the most part enjoy a strong credit position.

An important group of bonds with special characteristics of their own are obligations of public housing authorities. They differ from revenue bonds properly so called because they usually depend upon grants from federal, state or municipal governments, rather than rents collected, for debt service. These grants, in turn, generally come from tax collections.

INVESTMENT FACTORS RELATING TO MUNICIPAL BONDS.—Underlying considerations in the analysis of municipal bonds are:

1. Size and importance of the municipality.
2. Relative permanence and rate of growth of its population and resources, including its geographical location, transportation facilities, industries, commerce, and so on.
3. Co-extensive and overlapping political subdivisions.
4. Percentage of net debt (debt other than obligations sold for self-supporting projects and sinking funds) to assessed valuation of taxable property (making allowance for assessment methods in use).
5. Net debt per capita.
6. State limitation on tax rate levied for debt service.
7. Relative property tax rate.
8. Debt limitations imposed by state law.

MARKET FOR MUNICIPAL BONDS.—Municipal bonds are sold over the counter. Many dealers specialize in making a market for this class of securities. In a number of markets, the full-lot unit of trading is $10,000 par value. Many municipal bond issues, even of larger municipalities, are for relatively small amounts, being issued for a particular improvement.

METHODS OF REPAYMENT.—Municipal bonds are generally repaid by one of two methods: (1) through the operation of a sinking fund or (2) by serial, that is, instalment repayments. In rare instances payment is made at maturity either from current municipal revenues or

by refunding through a sale of a new issue. Most American municipalities use the serial method of debt redemption. Under this system, the bonds of a single issue are divided into a number of different maturities, which are paid off out of current revenues. Prevalence of serial maturities explains why these bonds are usually quoted on a yield, rather than a price, basis.

Real Estate Mortgages

CLASSIFICATIONS.—Loans on real estate may be classified as (a) mortgage, (b) mortgage bond, (c) leasehold mortgage, (d) debenture, and (e) income obligation. A real estate mortgage, defined from the investment standpoint, is an instrument under which the owner of the property, or mortgagor, borrows money from the lender, or mortgagee, pledging the property as security for the payment of the interest and principal. The mortgage may have a first subsequent claim upon the pledged property. An **amortized mortgage** is repayable in regular instalments during the duration of the loan.

A **first mortgage leasehold** is a mortgage upon a long-term lease of real property. It is subordinate to the rental contract between the lessee and the owner. Inasmuch as such a mortgage is generally placed also upon the property erected on leased land, it is in effect a first mortgage on the building and on the lease of the land.

A **real estate mortgage bond** is a participation certificate, usually of $1,000 face amount, in either a large real estate mortgage or in a group of several mortgages which are deposited with a trustee for the bondholders. A **real estate debenture bond** is a unit, usually with a $1,000 face value, of a large unsecured loan issued by the owners of a large parcel of real estate, generally a hotel or an office building. A **real estate income bond** is one on which the payment of interest is not a fixed charge, but is contingent upon the earnings of the real estate on which it has a claim. These bonds have generally been issued in connection with the financial reorganization of real property.

CHARACTERISTICS.—Real estate mortgages differ from other investments fundamentally because of the special nature of the property securing the obligation. Most mortgages are on relatively small parcels of property, but this very fact enables the mortgagee to consider not only the earning power, but also the market value of the property, as security for his loan. Its sale, in the event of default and foreclosure, is frequently feasible.

The property securing a real estate mortgage may be (1) small homes, (2) multi-family houses and hotels, (3) office buildings, (4) loft buildings and other industrial property, and (5) churches and other eleemosynary institutions. The investment characteristics of each type of mortgage loan are different.

The advantages of realty as a basis for investment are (a) its ready identification, (b) its permanence as a form of wealth, and (c) its general usefulness. Because of its permanent nature, furthermore, mortgages can run for long periods of time. On the other hand, real estate mortgages, as a class, have limited marketability, owing to the small size of the individual loan.

VALUATION.—Since the mortgagee may foreclose on and take title to pledged realty in case of default on a mortgage, the market value of the property is the major consideration to the investor. In the case of small homes, this reflects primarily sales prices of similar homes and reproduction cost. For multi-family houses, hotels, office, and industrial property, earning capacity determines market value. The principal factors determining earning capacity of urban real estate are (1) gross rentals, (2) operating expenses, and (3) taxes. Factors indicating changes in these items will lead to revision of valuations. Where property can be turned to more profitable uses, valuations may reflect such alternative employment of the realty.

RATIO OF LOAN TO VALUATION.—The investment quality of a real estate mortgage is determined by the ratio of the loan to valuation, as well as the probable stability of the property's value. Savings banks and trustees in New York and several other states are limited by law in making loans on real estate mortgages to 60% and 66⅔% respectively of appraised valuations. Where regular provision is made for amortization, loans are made in larger amount. With insurance by the Federal Housing Authority, loans are made up to 95% of the initial value of new small homes.

Since real estate values change and buildings depreciate over a period of time, regular amortization is vital to sound investment in mortgages. A gradual reduction in the amount of the loan protects the lender against loss.

In loans on improved properties, the land and the buildings are appraised separately, and the amount advanced on the buildings may be less than that on the land. When structures are obsolete, they may be excluded entirely from consideration in computing the limit of the loan. Such structures can even reduce the value of the land, to the extent of the cost and delay involved in their removal.

Real estate taxes affect property values, particularly where they cannot be passed on to tenants renting a building. Ordinarily, the purchaser of real estate discounts future tax payments at the prevailing or prospective rate in the price he pays.

MORTGAGE INSURANCE.—It has long been sought to make real estate mortgages more attractive to the investor by adding the obligation of a guarantor or insurance agency to that of the property owner. Before 1933, billions of dollars of mortgages were guaranteed by specialized mortgage guaranty companies, but nearly all of these were forced to default on their obligation in the depression of the 30's because of wholesale foreclosures and heavy losses on foreclosed realty.

The federal government has set up a mortgage insurance system of its own that seeks to avoid the pitfalls which brought about the collapse of the earlier mortgage guaranty companies. Furthermore, backed by the credit of the United States, this insurance system could be supported with government funds should this ever become necessary.

The Federal Housing Administration insures only mortgages held by institutional investors, because it does not want to foreclose on its own account for individual investors. Eligible financial institutions may apply for insurance of first mortgages on new or existing homes. The law and regulations under it specify maximum amounts of such loans

of various kinds, standards of construction, interest rates, and other related matters. A premium of ½ of 1% is collected as a fund out of which losses are paid. A very important requirement of the F.H.A. is that all insured mortgages provide for their gradual amortization over a period of years, since failure to require periodic amortization was a major factor in the heavy losses suffered by investors on their real estate mortgages in the 30's. Where a default occurs, the institution holding the mortgage forecloses and turns over the property, free of lien, to the F.H.A. in return for debentures of the Mutual Mortgage Insurance Fund, which are guaranteed by the Treasury. Since these government bonds may be expected to sell at par or a premium, the institutional investor is subject to loss only from the expenses of foreclosure, which may be minimized through arrangements with a legal firm to handle all such cases at a small flat fee for each and in some instances through buying insurance against such costs from a surety company.

The equivalent of mortgage insurance is provided by mortgage banks, which issue their own bonds secured by real estate mortgages. The Federal Land Banks issue debentures against farm mortgages which they acquire. The federal government supported these institutions in the depression emergency through purchase of additional stock of the land banks by the Treasury. Savings and loan associations sell shares, rather than debentures, against a portfolio of mortgages.

SECTION 7

SAVINGS INSTITUTIONS

CONTENTS

PAGE

Role of Savings Institutions

Direct vs. indirect investment 307
Purposes of the saver 307
Services of savings institutions 308
Estimated savings of individuals, in selected media (*f.* 1) 308

Savings Banking

Function of savings banking 309
Types of savings banks 309
Mutual savings banks 309
Stock savings banks 309
Savings departments of commercial banks 309
Industrial banks 309
Mutual savings bank operation 309
Investments of mutual savings banks 311
Statement of condition of New York State savings banks (*f.* 2) 314
Investment problems of mutual savings banks 315
The Savings Banks Trust Company 315
Savings bank policy 316
Status of savings departments of commercial banks 317
Postal savings 317

Savings and Loan Associations and Credit Unions

Savings and loan associations 318
Operations 319
Federal home loan bank system .. 321
Savings and loan insurance 321
Credit unions 322

Trust Companies and Trust Departments

Functions, responsibilities, and services 323

Investment Companies

Nature and purpose 323
Characteristics of investment companies 324
Investment profits 325
The age factor 325
The risk factor 325
The capital market factor 325

PAGE

Investment profits—*Continued*
The credit cycle factor 326
The government factor 326
Extent of managerial discretion 326
Classification of investment companies 326
Management investment companies 327
Closed-end companies 327
Open-end companies 327
Diversified and nondiversified companies 329
Common trust funds 329
Unit or fixed trusts 329
Periodic payment plans 330
Companies issuing face amount instalment certificates 330
Accounting problems 330
Balance sheet of closed-end management investment company (*f.* 3) 332
Statement of ordinary income of a closed-end management investment company (*f.* 4) 333
Statement of surplus of a closed-end management investment company (*f.* 5) 334
Statement of net assets of an open-end investment company (*f.* 6) 335
Statement of changes in net assets of an open-end investment company (*f.* 7) 336
Taxation 333
Regulation 337
National Association of Investment Companies 339
Investment counsel 339
The Investment Advisers Act of 1940 339

Life Insurance Companies

Investment aspects of life insurance 340
Investment and insurance elements of leading forms of policies (*f.* 8) 341
Investment element varies with form of policy 341
Term insurance 341
Whole life insurance 341
Endowment insurance 342
Premiums and dividends 342
Participating feature 342

PAGE

Settlements of policies 342
Ceasing premium payments 342
Policy settlements with beneficiaries 343
Lump-sum 343
Interest payments 343
Annuities 343
Monthly life-income payments .. 343
Equal monthly instalments 343

PAGE

Place of life insurance in investment picture 343
Life insurance companies as investors 345
Growth of life insurance assets (*f.* 9) 344
Investments of 49 United States legal reserve life insurance companies (*f.* 10) 345

SECTION 7

SAVINGS INSTITUTIONS

Role of Savings Institutions

DIRECT VS. INDIRECT INVESTMENT.—Aside from mere hoarding, the saver has two major alternatives in the use of his funds. The first is direct investment. He may engage in business alone or with others, acquire real estate, or purchase securities in the open market. If he prefers, he may take a creditor instead of an equity position and purchase mortgages or bonds. These securities he may acquire direct from the issuer, from investment bankers, or through stock brokers. In recent years, government bonds—for the small saver, Series E bonds—have bulked large among available investments.

The alternative open to the saver is that of **indirect investment.** He may entrust the task of employing his funds to one or more savings institutions that have been designed to serve different types of savers. These institutions are:

1. Savings banks, thrift departments of commercial and industrial banks, or the Postal Savings System.
2. Savings and loan associations and credit unions.
3. Trustees under both living and testamentary trusts, chiefly trust companies and trust departments.
4. Investment companies.
5. Life insurance companies, which also write annuities.

Surveys indicate more people own life insurance than United States Savings Bonds and that about as many have savings bonds as possess savings accounts. A much smaller number of persons own other securities.

PURPOSES OF THE SAVER.—The saver redistributes his money income in time by restricting present spending for consumption. Some of the spending he may defer temporarily, perhaps until goods are available, some more or less permanently. In so far as saving is rational, it reflects fear of a possible inadequacy of income at some later date in relation to needed expenditures. On the basis of the economic hazards (aside from inflation) that give rise to this uncertainty, the purposes of the saver may be classified as follows:

1. Security
   a. Emergency, whether as added expense (such as maternity), reduced income (such as loss of job), or a planned contingency (such as education).
   b. Either maintenance of one's standard of living by provision of a retirement income for old age or infirmity, or raising the future standard of living by providing a supplementary income.
   c. Provision for dependents after death.

2. Provision of permanent assets, such as a home.
3. Gratification of certain more temporary desires, such as a car, clothes, or a vacation.

A study in the Federal Reserve Bulletin for September, 1945, showed saving for security purposes most frequent, and for acquisition of specific permanent assets (including home purchase or remodeling and mortgage debt retirement) second. Recent students of the subject emphasize nonpecuniary motives, since human personalities are complex. Prestige, power, conformity to social custom and patriotism all play their part. And individuals of large means save almost automatically; this has long been recognized. Finally, business concerns today are the greatest of all classes of savers by reason of their retention of earnings in the business and through the setting aside of depreciation reserves.

Services of Savings Institutions.—Savings institutions are designed to meet the needs of different classes of savers. The distinction is related, though not entirely, to the size of the saver's funds and to his investment tastes. Thus the man of small means trying to protect himself against an emergency regards the savings account as safe and convenient, while the man of larger means eager for income or appreciation can seek out the investment company. Again, an individual desiring a retirement income can turn to an annuity, while another seeking to make financial provision for his dependents after his death can turn to life insurance. But the exact fields of service of the various institutions, and the lines of demarcation between them, are not clear cut. Much overlapping occurs. Also, over the years changing economic conditions and government activity have caused considerable change in their status. In particular, as savings have become more widespread the savings bank has seen its appeal limited because newer institutions have come into prominence, catering to particular fields which have assumed importance. Stated in terms of ultimate economic use of the funds, the different institutions provide different types of capital. Some furnish risk or venture capital, others emphasize safety instead.

The changing relative importance of leading institutions since the close of the First World War is roughly shown by the data in Fig. 1 (Home Loan Bank Board, Statistical Summary), showing estimated savings (in millions of dollars) of individuals, in selected media (other than investment companies), as of the close of specified years. Part of the

Year	Commercial Banks	Mutual Savings Banks	Savings and Loan Associations	Postal Savings	U. S. Govt. Savings Bonds	Life Insurance Companies	Total
1920.	$10,546	$ 4,806	$ 1,741	$ 166	$ 761	$ 5,488	$ 23,508
1930.	18,647	9,384	6,296	250	–	13,690	48,267
1933.	10,979	9,506	4,750	1,229	–	14,613	41,077
1935.	12,899	9,829	4,254	1,229	153	17,203	45,567
1940.	15,403	10,618	4,272	1,342	2,800	24,663	59,098
1945.	29,929	15,332	7,365	3,013	42,900	37,509	136,048
1950.	35,070	20,010	14,038	3,035	50,000	54,000	176,153

(Millions of dollars)

FIG. 1. Estimated Savings of Individuals, in Selected Media

drop in the savings and loan figures after 1930 reflects merely a change in method of operation, from sinking fund to direct reduction mortgage lending. The October, 1946 figure for all registered investment companies was 5.6 billions, although by 1929 the public had placed almost $7 billions in all classes of investment trusts.

Savings Banking

FUNCTION OF SAVINGS BANKING.—Savings banks receive the savings of persons of moderate means, pool them, and place them in sound investments. They offer a convenient means for accumulating savings, guard the principal while providing a modest return, and enable the saver to recall his funds readily.

TYPES OF SAVINGS BANKS.—Savings banks are of several types:

1. **Mutual savings banks,** owned by their depositors and operated for their sole benefit by self-perpetuating trustees. This type dates back at least to Rev. Henry Duncan's "Parish Bank," established in 1810 at Ruthwell, Scotland, and reached the United States in 1816. It is confined to 17 states—the 6 New England states, the 5 Middle Atlantic states of New York, New Jersey, Pennsylvania, Delaware, and Maryland; Ohio, Indiana, Wisconsin and Minnesota; and Washington and Oregon. At the close of 1951 there were 529 mutual savings banks, with deposits of $20,900,000,000. In addition to the mutual savings banks there were 10 guaranty savings banks in New Hampshire which receive "special" deposits that serve to protect the "general" deposits.

2. **Stock savings banks,** which confine themselves to receiving savings deposits but are owned by stockholders and operated for their benefit. Today few such banks exist.

3. **Savings departments of commercial banks** (both national and state) and trust companies, which were given impetus by the permission granted national banks by the Federal Reserve Act of 1913 to receive savings deposits, and which are now found in the great majority of such institutions. Most small banks have more time than demand deposits. Commercial banks have become strong competitors of mutual savings banks even in the latter's own territory.

4. **Industrial banks,** typified by the Morris Plan, were akin originally in certain ways to stock savings banks. At their inception around 1910 these institutions extended consumer loans repayable on an instalment basis and obtained at least part of their operating funds from the sale of investment certificates or the receipt of time deposits; they thus sought to promote thrift as well as to provide loans to individuals. With the passage of time they have tended to enlarge their activities until a substantial number now resemble ordinary state banks in the scope of their operations.

MUTUAL SAVINGS BANK OPERATION.—In the mutual savings bank, depositors receive "dividends" at a rate fixed or declared by the trustees of the institution from time to time. The remaining income accumulates in a guaranty fund or **surplus** which protects depositors in the same way as do capital stock, surplus, and undivided

profits in the commercial bank. State laws generally require that surplus be built up by setting aside a portion of earnings until it equals 10% of deposits. After surplus has reached a specified figure, additional earnings may be used to pay extra dividends. When the bank first opens its doors its sponsors advance funds to cover expenses and initial surplus; these advances are repaid (with or without interest) as earnings rise. Each new depositor shares automatically the protection afforded by the bank's previously accumulated surplus, thereby at once reducing correspondingly the extent or degree of protection enjoyed by each present depositor. Only as earnings are realized on the deposits he makes do his funds contribute to the growth of surplus.

Management and ownership are distinct in the mutual savings bank, since the depositors have no voice in its operation. The bank is managed by a board of trustees whose rewards may consist primarily of honor and prestige. Originally selected by the organizers of the bank, in most states they then become a self-perpetuating body which elects new members only to replace those who die, resign, or are removed.

In an effort to confine the use of mutual savings banks to small savers and to avoid the disturbance resulting from sudden withdrawals of large accounts, state laws generally fix a maximum balance that may stand to the credit of a single depositor. In New York the figure was raised in 1920 from $3,000 to $5,000, in 1926 to $7,500, and in 1951 to $10,000, exclusive of accrued dividends. An additional $10,000 may be held in accounts in trust for others. A person may if he so desires keep accounts in more than one savings bank, or accounts for different members of his family in a single institution. At times individual savings banks have further restricted the maximum of deposits they would accept.

The account is evidenced by a **pass book,** which generally is presented to the bank by the depositor in person or by his assignee when a withdrawal is made. Banking by mail is permitted. The bank must by law reserve the right to require notice of withdrawal, usually 30 or 60 days, but in practice savings banks customarily pay on demand.

According to the National Association of Mutual Savings Banks, at the end of 1951 the average regular deposit account had a balance of $1,392; the dividend paid ranged from 1% to 3% annually, with 257 banks paying 2% and 156 paying 2½%, and the average per bank was 2.19%.

Since World War I, the emphasis in savings has shifted from provision for old age and unforeseen emergencies to more definite and immediate objectives. In part, this is reflected in the attitude of the "regular" savings depositor, but it is also evidenced by the growth of special types of accounts. Thus many **savings club** plans are now offered to provide, through periodic deposits, funds for vacation, travel, education, Christmas gifts, or the purchase of a home. Under **industrial savings plans,** the employer periodically receives for deposit in a savings bank a specified sum from the wages of those workers who wish to participate. **School savings,** first introduced in 1882, seek to promote habits of thrift among the young. School savings and club plans entail much clerical work, but are encouraged as a potential source of larger regular deposits. At the close of 1951, school and formal club in contrast

to regular deposits accounted for less than ¾ of 1% of total deposits, but were held by almost ¼ the total number of depositors.

Since 1907 some Massachusetts savings banks have offered **life insurance and annuities** at moderate rates in limited amounts; life insurance has been provided in New York since 1938 and in Connecticut since 1941. The banks writing life insurance are required to invest a minimum amount in their own insurance department and in a central fund. The plan, which has shown steady progress, seeks to eliminate lapses of policies and costly solicitation and other expenses to which ordinary industrial life insurance is subject. At the close of 1951, savings bank life insurance was available through 67 savings banks in New York State; there were 135,000 policies in force with a face value of approximately $190,000,000. Savings bank life insurance was sold by 163 savings banks in Massachusetts; including group insurance, the total in force was $425,000,000. In Connecticut 31 savings banks had $17,000,000 in force, or a grand total of $632,000,000.

Incidental services rendered by savings banks include giving advice on family budgets, renting safe deposit boxes and selling savings bank money orders, selling foreign exchange and travelers' checks, selling U.S. Treasury savings bonds, and redeeming Series E savings bonds.

Investments of Mutual Savings Banks.—Most of the 17 mutual savings bank states have enacted legislation regulating the investments of these banks. Thus they have sought to protect the depositor and, in some cases, also to favor investment within the state. The New York State law has served as a model for a number of other states. In 1952, it authorized the following classes of investments:

1. Bonds of the United States.
2. State and municipal bonds
   a. Bonds of New York; and other states which have not defaulted (for more than 90 days) within 10 years. The obligation must never have been in default.
   b. Bonds of municipalities in New York State; in states adjoining New York, provided they have 10,000 population and have not (for more than 120 days) defaulted within 25 years; and in other states whose bonds are legal for investment, provided they are 25 years old, have 30,000 population, and have not defaulted within 25 years. For cities with less than 150,000 population and $200,000,000 of real property as well as for counties in which such cities are located, certain additional requirements exist as to ratio of debt to assessed value of real property (in general for cities 12% and counties 5%) and as to the power to levy taxes on realty without limitation of rate or amount.
   c. Bonds issued by public authorities in New York State.
3. Railroad bonds, including equipment trusts.
   Mortgage bonds of railroads which have not defaulted on funded debt within the 6 preceding years and which operate 500 miles of road in the United States or have operating revenues of $10,000,000 in each of 5 of the last 6 years, and which have covered fixed charges 1½ times in each of 5 of the last 6 years, including the last year. In addition, either dividends equal to one quarter the fixed charges must have been paid in 5 out of the 6 preceding years, or fixed charges must have been earned 1½ times in 9 out of the 10 preceding years, including the last year.

Assumed and guaranteed bonds are admitted as well as direct obligations. Equipment trust obligations are limited to 80% of the cost of equipment and a 15-year maturity. Collateral trust bonds must be fully secured by other legal rail bonds of no longer maturity. From time to time, restrictions applying to the relation of earnings to fixed charges have been modified, notably since 1931.

4. Public utility bonds.
   a. Mortgage bonds of gas and electric companies which are at least 8 years old and have not defaulted within 8 years. Net earnings must have averaged 2½ times interest charges on funded debt for 5 years, as well as twice for the last year. Gross operating revenues must have averaged $2,000,000 a year for 5 years.
   b. Telephone company bonds are admitted under similar conditions, except that for the 5 preceding years gross operating revenues shall have averaged $5,000,000. Debt must not exceed a prescribed ratio to capital. Debentures eligible under standards more rigid than for mortgage bonds.
5. Land bank securities.
   a. Bonds of the Federal Land banks and debentures of the Federal Intermediate Credit banks.
   b. Bonds of the Savings and Loan Bank of the State of New York and bonds of the Federal Home Loan banks.
6. Real estate mortgages (including construction loans).
   a. First mortgages on real estate in New York State, or in an adjoining state, up to 66⅔% of the appraised value of improved property used for residential, business, manufacturing, or agricultural purposes, up to 60% otherwise.
   b. Loans insured by the F.H.A. or guaranteed by the V. A. Latter guaranty may be as low as 20% if the mortgage is a first lien.
   c. Up to 80% on owner-occupied single family residences, constructed within 2 years and located within 50 miles of the bank. (Limit 50% on value in excess of $10,000. Such mortgages must have monthly amortization and 20 year maximum maturity.)
7. Stock and debentures of a housing company, all of the stock or obligations of which is owned by one or more savings banks, under conditions prescribed by the State Banking Board.
8. Promissory notes payable in 90 days, secured by obligations legal for savings bank investment, or by a savings bank pass book; and promissory notes of a savings and loan association.
9. Bankers' acceptances and bills of exchange of banks located in New York State or of investment companies, eligible for purchase by Federal Reserve banks.
10. Real estate, both banking house and lot, and that conveyed to the bank in satisfaction of debt, in lieu of foreclosure, or purchased under judgments, decrees, or mortgages.
11. Securities or any other property acquired in settlements or reorganizations.
12. Stock necessary to qualify for membership in the Federal Reserve Bank or the Federal Home Loan Bank, and stock and other securities of the Savings Banks Trust Co. and the Institutional Securities Corp., including participations in F.H.A. mortgages on real property located in New York State or an adjoining state, held by the latter organizations.
13. Obligations issued or guaranteed by the International Bank for Reconstruction and Development.
14. Corporate bonds approved by the State Banking Board upon the application of at least twenty savings banks or the Savings Banks Trust Co.

15. Stocks. Preferred stock, if the earnings over 5 years 1½ times fixed charges and preferred dividend requirements, and that high in either of the last 2 years. Guaranteed stock, if the earnings of the guaranteeing company 1½ times fixed charges over 5 years, and in either of last 2 years. Common stock of companies registered on national exchanges, if dividends paid in each of 10 years and earnings sufficient over the 10-year period to pay the dividends. Stock of a registered investment company wholly owned by savings banks and limited to investments of types legal for savings banks.
16. Corporate obligations not otherwise legal, but amount, together with stock investments, not to exceed surplus and undivided profits.

In order to promote diversification, New York State has also set maximum limits for certain classes of investments:

Mortgages and real estate, exclusive of F.H.A. insured loans, the guaranteed portion of G.I. loans, and bank buildings	65% of total assets
Housing company stock and debentures	5% of assets
Railroad bonds	25% of assets (10% in one N. Y. corporation, 5% elsewhere)
Public utility bonds	25% of assets (2% in one gas and electric, 3% in one telephone company)
Bank deposits and acceptances	Smaller of 5% of savings bank's deposits or 25% of depositary's capital and surplus
Stock	50% of surplus and undivided profits. (1% of assets in any one company, and 2% of that company's stock.) Common stock, or the investment company referred to above, ⅓ of surplus and undivided profits

In 1946 a new yardstick was introduced in New Jersey for qualifying railroad bonds as legal investments. Bonds could be bought under this law if coverage of fixed charges by the issuing railroad for the 3 preceding years was better than the average for all Class I railroads in the country, and if the percentage of gross revenues remaining after payment of fixed charges was greater than that for Class I roads as a whole. This law sought to permit savings banks to purchase bonds of financially stronger roads in bad times, when earnings and bond prices are low, as well as in good times when they are high. The fixed earnings yardsticks of other states admit to the legal list bonds of inferior quality in periods of large earnings, and force off the list during a depression intrinsically high-grade bonds because of a temporary decline in earnings. A single test of this kind cannot be applied satisfactorily to industrials because of their diverse character or to utilities because of their more uniform performance and wider safety margins.

As investment yields have declined in recent years, savings bankers have debated the merits of a legal list of investments. Criticisms center around the rigidity of the legal list and the difficulty of evolving adequate tests to which admitted securities must conform. Equally

STATEMENT OF CONDITION OF NEW YORK STATE SAVINGS BANKS

December 31, 1950

(In thousands of dollars)

ASSETS	Net Book Value
Cash on hand and cash items	$ 76,197
Due from banks and trust companies	433,091
Bond investments, including debentures of Institutional Securities Corp.	7,055,860
Mortgage investments	5,207,612
Other loans	18,247
Advances for taxes, insurance, and prepaid insurance and other expenses	2,309
Banking house(s)	65,430
Other real estate owned	3,145
Furniture and fixtures	1,978
Accrued interest receivable	46,598
Other assets	66,278
Total Assets	$12,976,745

LIABILITIES AND SURPLUS	
Due depositors	$11,664,376
Accrued dividends, taxes, and expenses (including reserves)	11,943
Other liabilities	47,107
Total Liabilities	11,723,426
Surplus fund	920,955
Undivided profits	302,043
Other segregations of surplus	30,321
Total Surplus	1,253,319
Total Liabilities and Surplus	$12,976,745

SUMMARY OF BOND INVESTMENTS

U. S. government obligations (direct and guaranteed)	$ 6,212,071
New York State and municipals	40,107
Other states and municipals	13,860
Railroads (including equipment, tunnel, and terminal)	349,130
Utilities	285,487
Miscellaneous	189,783
	7,090,438
Less valuation reserve	34,578
Total	$ 7,055,860

MATURITIES—U. S. GOVERNMENT BONDS

September 30, 1950

(In millions of dollars)

Final Maturity	Par Value
Within 5 years	$ 402
Between 5 and 10 years	112
Between 10 and 20 years	3,836
Over 20 years	1,996
Total	$ 6,346

FIG. 2. Statement of Condition of New York State Savings Banks

good but nonlegal issues often yield a higher return, while the list is practically limited to fixed interest-bearing bonds. Many savings bankers have favored application to them of the **prudent man rule,** which provides wider discretion in selecting investments. The tendency to secure greater flexibility is illustrated by item 14 in the New York State list, added in 1938.

Fig. 2 shows the condition of the New York savings banks at the close of 1950.

Investment Problems of Mutual Savings Banks.—Long ago the qualities that a mutual savings bank portfolio should possess were stated as safety, liquidity (in the sense of reversibility of the investment, to provide cash through either sale, maturity, or loan), and yield. Different sections of the portfolio provide different qualities, and the relative emphasis shifts as conditions change.

A brief review of developments in New York State since World War I provides a background for consideration of current investment problems:

1. The 1920's witnessed unprecedented growth in deposits (despite keen competition from other institutions), with high dividend rates and lucrative investments. Government bond holdings and cash fell off, while mortgage loans mounted sharply.
2. During the depression of the 30's savings bank deposits were swollen at first by an influx of temporary funds. In self defense, banks generally reduced dividend rates, and some limited the sum they would receive from a single individual. After a drop in 1933, when withdrawals were restricted, deposits showed a small but steady gain. Investments reversed nearly every trend apparent before 1929. Mortgage holdings contracted as a result of drastically reduced lending and the rise of foreclosures; the process of cleaning up the mortgage picture and working off real estate thereby acquired continued until well into the 1940's. Corporate bonds, particularly rails, fell sharply, but governments rose.
3. In the World War II era, government bonds became the most important investment for the large deposit growth.
4. The postwar years show continued deposit growth, with rapid increase in mortgage holdings. The imposition of a federal tax on savings bank income is being reflected in investment and dividend policies.

The Savings Banks Trust Company.—The depression of the early 1930's emphasized to savings banks the benefits of cooperating with one another. Mere amortization of mortgage loans and arrangement of maturities of bond holdings did not suffice, while membership in the Federal Reserve System and in the Federal Home Loan Bank System proved of limited significance. In July, 1933, the New York savings banks organized two institutions, owned entirely by themselves, to provide centralized machinery.

The Savings Banks Trust Company receives deposits from mutual savings banks and can lend to them against suitable collateral, while the **Institutional Securities Corp.** may buy mortgages from them. At the close of 1951, the Trust Co. held demand and time deposits of savings banks, the government, and others, of $237,000,000. The Corporation has a capital of $10,000,000 payable in cash or mortgages, half of which has been called for payment.

Besides acting as depositary and correspondent, the Trust Co. acts as investment consultant and trustee, as well as a reserve body and clearing house for information on matters of interest to the Savings Banks Association of the State and its members. Its principal services are:

1. Banking operations
   - Depositary and correspondent.
   - Paying agent for money orders.
   - Custodian of securities.
   - Agent or trustee in connection with readjustment of nonlegal securities, representing members on various institutional group committees.
   - Reorganization of mortgages and real estate.
2. Specialized services
   - Investment information.
   - Analyses of securities proposed for legal list and recommendations to the State Banking Board of those deemed suitable.
   - Analyses of bond portfolios for subscribers and rendering of continuous investment service.
   - Research on savings bank problems.
   - Mortgage and real estate information.
   - Agent for banks undertaking housing projects.

The Institutional Securities Corp. services mortgages and aids in the management, sale, appraisal, and inspection of real estate; through the sale of its debentures to the savings banks it provides an added opportunity for the investment of savings bank funds. Departmental activities are:

1. Mortgage and real estate servicing.
2. Appraisal service
   - On properties serviced.
   - Special appraisals on portfolio analyses and new loan applications.
   - "Screening" of new loan applications for New York savings banks.
3. Mortgage servicing of corporate-owned mortgages.
4. Corporate financing, in sale of debentures and short-term borrowing.
5. Mortgage loans—national market
   - Investigation and purchase of insured mortgages.
   - Promotional efforts.
   - Plans, procedures, and legal studies.
6. Mortgage loans—New York City.

Mutual savings banks in several other states have set up less elaborate organizations of this type. In 1932, Massachusetts set up a Mutual Savings Bank Central Fund, and a year later added deposit insurance. In 1933 Connecticut instituted a plan, which it broadened in 1935, and in 1943 provided full-fledged deposit insurance. In 1933 New Hampshire also instituted a plan. The Maine plan adopted in 1934 has since been abandoned.

Savings Bank Policy.—The savings bank faces the question whether it properly is merely the holder of the cash reserves which its depositors maintain against the emergencies of life, or whether it should be more completely integrated with the individual's financial plan. Savings bankers themselves differ as to the role their institution should play. Some banks have adopted "split" or differential dividend rates, designed to favor the saver as distinguished from the transient. A few,

notably the Bowery Savings Bank of New York, have developed a composite plan; **"packaged saving"** as developed by that institution in 1945 applies regular deposits over a specified period to the accumulation of a bank account to be held against emergencies and a block of government bonds, with the protection meanwhile afforded by a savings bank life insurance policy. Other banks largely continue the old familiar patterns. They are content to provide a convenient and safe place for people of poor and moderate means to entrust their funds so that, while yielding a return, these funds will in practice be immediately available when needed.

STATUS OF SAVINGS DEPARTMENTS OF COMMERCIAL BANKS.—Bank failures during the early 30's focused attention upon the position of the savings depositor in the commercial bank. There was, with rare exception, no complete departmentalization, nor were savings funds segregated from commercial funds and invested separately. Besides, investments were not restricted as was customary in mutual savings banks. Thus the savings depositors of a commercial bank were ordinarily under a two-fold handicap: not only were they without the investment safeguards provided in a mutual savings bank, but their deposits were subject to notice of withdrawal in case of a run, whereas demand deposits were not.

After the panic of 1907 certain states had recognized a right of savings depositors to preferential treatment over commercial depositors and had enacted legislation. But segregation of assets for savings depositors provided by several New England states, California, and Texas was criticized as weakening the bank. California, however, goes so far as to require that separate capital and surplus be assigned to the savings department, and restricts the investment of the funds of that department.

The establishment of the Federal Deposit Insurance Corp. in 1934 has stilled agitation for special protection to savings depositors. In so far as the Corporation's protection of $10,000 per depositor is regarded as inadequate or incomplete, the attack on the problem has been to emphasize measures to strengthen banks in general so that they will not fail. The Corporation has widespread powers of examination and may promote the merger of a weak bank instead of closing it. In order to reduce bank hazards, under the Banking Act of 1933 both the Corporation and the Federal Reserve Board were empowered to regulate rates of interest paid on time deposits, the one for insured nonmember and the other for member banks of the Federal Reserve System.

POSTAL SAVINGS.—Government savings banks operated by the post office or by municipalities had long existed in European countries when postal savings were established in the United States in 1910. The system was at first made supplementary to existing banks rather than directly competitive with them, but in the view of bankers this is no longer true. In their view, too, the institution of federal deposit insurance raises question as to the justification for continuance of postal savings.

Depositors must be individuals 10 years of age or over and may have but one account. The limit to the credit of one depositor was raised in 1918 to $2,500, exclusive of accumulated interest. Deposits are made

in round dollars, and are evidenced by nontransferable certificates in denominations of $1, $2, $5, $10, $20, $50, $100, $200, and $500. Advance notice of withdrawals may be required, as a postmaster may be temporarily short of available funds. Both deposits and withdrawals may be made in person, through a representative, or by mail. A withdrawal by mail involves money order fees.

Postal savings deposits earn interest at the rate of 2% a year, being limited to the maximum payable by the state banks on savings deposits. Deposits begin to earn interest on the first day of the succeeding month. For each complete quarter of a year period following this date a fourth of a year's interest is collectible. To avoid any interest loss the depositor should collect accrued interest by exchanging his certificate for a new one only when at least one year's interest is payable, and during the first month of an interest quarter. For example, interest began January 1, 1945 on a deposit made in December, 1944; to avoid loss of interest, the certificate should be presented in January, April, July, or October of any succeeding year. However, interest can be compounded only annually, and then only by purchasing (with the interest due) an additional certificate in a round amount.

The Postal Savings System is administered by the Postmaster General and the Board of Trustees of the System. The former designates the post offices to act as depositaries, supervises their operations, and manages the Washington office. The Board, composed of the Postmaster General, the Secretary of the Treasury, and the Attorney General, has charge of the investment of deposited funds. A reserve of 5% of deposits in lawful money is maintained with the Treasurer of the United States. A small sum is deposited with qualified depositary banks, but the bulk of the deposits is invested in United States government securities. At one time, the bulk of the funds was redeposited at interest in local depositary banks, but such funds are now unattractive to banks, since they must pay 2¼% on such deposits in addition to pledging government securities or tax-supported bonds of other public bodies as security on that portion not covered by federal deposit insurance.

On June 30, 1951 there were 8,200 post office depositaries in operation, with a balance of $2,788,000,000 to the credit of 3,500,000 depositors. Congress has been urged repeatedly in recent years to terminate the Postal Savings System because adequate facilities for the small saver are now provided by banks, savings and loan associations, and U. S. savings bonds.

Savings and Loan Associations and Credit Unions

SAVINGS AND LOAN ASSOCIATIONS.—These are cooperative institutions which seek to encourage thrift and to foster home ownership. Dating back in the United States to 1831, they are also known as **building and loan associations** and **cooperative banks.** Although nationwide in scope and growing rapidly in the newer states, one third of the associations are found in three states—Pennsylvania, New Jersey, and Ohio. They may be chartered and supervised either by the state in which they operate or, since 1933, by the Federal Home Loan Bank Board. Almost one-fourth the total number (including the larger associations) possess a federal charter; more than half of these

were organized originally under state law but relinquished their state charters. At the close of 1950, according to the Home Loan Bank Board, there were 5,980 operating associations, with assets of $16,925,000,000.

Operations.—The associations raise their capital chiefly by issuing shares. Under the old **terminating plan,** the shares matured at a specified date and the association was dissolved. Members joining after the association had started paid in the then book value of the shares. The **serial plan** admitted members in groups, each group constituting an independent series of shares which paid no accumulations and had its own maturity date. The **permanent plan** now in general use permits members to join at any time. Regardless of the plan of operation, there are several classes of shares, more than one of which may be issued by an association:

1. **Instalment shares** are paid for by dues paid at regular intervals. Besides, fees may be collected when joining or withdrawing, and fines imposed for delinquent payments.

2. **Full-paid shares** are issued when instalment shares mature or when a cash subscription is made.

3. **Prepaid shares** differ from full-paid shares in that they re sold at a discount which allows for anticipated dividends to bring their value to par at maturity.

4. **Optional shares** allow payments to vary in time and amount with the member's convenience.

The share accounts of federal savings and loan associations resemble savings deposits in several respects. They are nonassessable and have neither fixed maturity nor par value, but simply participate in earnings in proportion to the accumulated value of each account. They are of two classes—**savings share accounts,** which permit investment at regular or irregular intervals, and **investment share accounts,** which consist of full-paid income shares of $100 or multiples thereof. The latter may be represented by certificates instead of share account books.

Members of the association may cast one vote for each $100, or fraction thereof, of the participation value of their share accounts, and a borrower member is entitled to one additional vote as a borrower, but no member may cast more than 50 votes. The association is governed by a board of from 5 to 15 directors (approximately one-third of whom are elected each year for a 3-year term), which in turn elects the officers. In addition to raising funds through share accounts, federal associations may borrow a sum not exceeding half their share capital, but advances from sources other than a Federal Home Loan bank may not exceed 10%.

Savings and loan associations invest the bulk of their funds in loans on real estate. Federal associations are restricted, either by law or the standard charter, to first mortgage loans for not more than $20,000 on one- to four-family dwellings (including combined home and business properties), located within 50 miles of their offices; loans running between 5 and 20 years must call for monthly amortization but may be made for as much as 75% of the appraised value of the property, while loans running for less than 5 years need not be amortized but may not exceed 50% of the appraised value. However, 15% of the total assets

may be placed in loans which do not meet the basic requirements as to size, location of property, or amortization.

The following types of loans are also permitted:

1. Loans authorized under the Servicemen's Readjustment Act of 1944 (GI bill of rights) by those associations which have amended their charter to permit such loans.
2. Loans insured by the Federal Housing Administration which do not violate any of the provisions of Sec. 5c of the Home Owners Loan Act. This serves to limit maturities to 20 years and to eliminate improvement loans under Title I, but loans up to 90% of appraised value can be made under item 3 below.
3. Loans under other plans and for greater percentages than the basic 75% and 50% mentioned above, with the approval of the Federal Home Loan Bank Administration. The latter has prepared a list of plans; these are geared to multiple dwellings and include various combinations of maturity, nature of property, amortization and per cent of appraised value that may be lent. An association may amend its charter so as to permit its directors by resolution to adopt any such Administration plan. The basic purpose is to broaden service to borrowers in metropolitan areas, in which competition for mortgages is keen.

Loans may also be made to members against their shares. The federal law limits such loans to 90% of their repurchasable value. Finally, federal associations may invest without limit in direct or fully guaranteed obligations of the United States, obligations of or stock in Federal Home Loan banks, and in other securities approved by the Administration.

The **direct reduction** lending plan is employed by the federal associations. This plan was initiated about 1910 to replace the earlier system whereby borrowers subscribed to instalment shares which, when paid in full, were tendered in payment of the loans.

Savings and loan associations have been strong competitors of savings banks, both in lending and in attracting funds from nonborrowers. Due to the nature of their assets, they have been able to pay relatively high interest rates to savers. To stimulate systematic thrift, federal associations may adopt short- or long-run **cash bonus plans.** These equal ½% and 1% per annum, respectively, and apply in case monthly payments have been made with no more than 60 days' delay, and without request for repurchase, when the participation value equals 100 and 200 times the agreed monthly payment. A partial bonus is provided for one who accumulates 50, or 50, 100 or 150 times the agreed monthly payment before applying for repurchase. Dividends are payable semiannually, on June 30 and December 31, in cash on investment share accounts and by book credit on savings share accounts. Before declaring dividends, a reserve (aside from reserve for losses) equal to 10% of outstanding share capital must be accumulated by setting aside 5% of net earnings.

On any dividend date, a federal association may redeem at full value any or all of its share accounts, provided share capital is not impaired and there are no applications for repurchase which have been on file more than 30 days and not reached for payment. It will repurchase shares either at once or on 30 days' notice in order of application; at least ⅓ of its receipts from holders of share accounts and borrowers

must be devoted to this purpose. Notice may be waived on repurchases of $100 or less, but when an association is limiting its repayments a single repurchase is limited to $1,000 and the balance goes to the foot of the list of applications.

Federal Home Loan Bank System.—The Federal Home Loan Bank Act provides a central banking mechanism for savings and loan associations. Under the Housing and Home Finance Agency, the Home Loan Bank Board supervises the Home Loan Bank System and the Federal Savings and Loan Insurance Corp. The Board also supervised the Home Owners' Loan Corp. until it was liquidated. There are 12 Federal Home Loan banks; federal savings and loan associations are required to be members and state chartered building and loan associations, savings banks, and insurance companies may become members or nonmember borrowers. The government provided the bulk of the initial capital of the Home Loan banks, which have issued consolidated debentures to supplement the deposits of their members and their own capital. The Home Loan banks keep an amount equal to their capital and current deposits from members in United States government obligations, in deposits in banks and trust companies, in advances running one year or less, and in securities legal for trust funds in the state in which the bank is located. Chiefly, however, they make either short-term loans to care for the temporary needs of their members or long-term amortized loans to provide funds to supplement their members' home financing program.

Advances are made to member associations against home mortgages, direct or fully guaranteed obligations of the United States, or stock in the Home Loan bank. Loans to one institution may not exceed 12 times its stock holdings in the bank. Acceptable mortgages are restricted as to size ($20,000) and maturity (20 years); 65% of the unpaid balance is lent in the case of amortized and 50% of unamortized mortgages. The result is to make unavailable as security for loans from the bank mortgages which modify the basic pattern of federal savings and loan association lending.

Savings and Loan Insurance.—During the 1890's and again in the early 1930's, safety and liquidity became major problems for savings and loan associations. In 1934, insurance of savings and loan accounts was adopted to solve these problems. The Federal Savings and Loan Insurance Corp. was created (with capital of $100 millions subscribed by the Home Owners Loan Corp.), with which federal savings and loan associations must, and approved state chartered associations may, insure their share accounts. The admission fee is $400 per million, while the annual premium is $\frac{1}{12}$ of 1% of aggregate insurable accounts plus other obligations to creditors. One additional annual assessment of equal amount is permitted to cover losses and expenses, but has not been made to date. When the Corporation's reserves reach 5% of its potential liabilities, premium payments cease.

The maximum amount insurable for any one investor is $10,000. Shareholders in an insured association in default are now protected in a manner similar to depositors in closed insured banks. They receive either cash or accounts of equal amount in other insured associations. The Corporation does not insure immediate liquidity of insured accounts,

but rather protects shareholders against ultimate loss in the event of insolvency. Only indirectly, by lending to, or purchasing assets from, insolvent associations, or making contributions to them, as well as through careful supervision, does the Corporation seek to prevent defaults and thus to assure liquidity.

On December 31, 1950, the Corporation had assets of $200,000,000, almost entirely composed of United States government obligations. At that time, it insured accounts amounting to approximately $11,200,000,000 in 2,860 insured institutions both federal and state chartered, with assets in excess of $13,700,000,000.

CREDIT UNIONS.—A credit union is defined by the Bureau of Federal Credit Unions as "a cooperative association organized to promote thrift among its members and to create a source of credit for useful purposes." Its members pool their savings by purchasing shares. Unlike the savings and loan association, however, lending is not for home building but for other personal needs. During the war they, in common with other institutions, also established a further market for U.S. government securities.

Credit unions have been common in Europe. The first one in the United States was organized in Massachusetts in 1892, which state enacted the first legislation in 1909. In 1921 the Credit Union National Extension Bureau was formed and drew up a standard law for enactment by the states. Credit unions are also chartered, since 1934, by the federal government (successively by the Farm Credit Administration, the Federal Deposit Insurance Corp., and the Federal Security Agency). The Federal Act is typical and what is said here refers to its provisions.

Credit unions are organized chiefly to serve groups of 100 or more persons having a close, common bond of occupation, association, or residence, such as employees of a company, members of a church, or residents of a small community. At the close of 1950, 83% of the 4,984 reporting federal credit unions, 91% of their total membership, and 92% of their total assets of $406,000,000 were accounted for by groups whose common bond was through employment by the same employer. According to the United States Bureau of Labor Statistics, there were 10,581 active credit unions of all kinds in the country at that time, with a reported membership of 4,609,000 and assets of $1,005,000,000.

Members of federal credit unions are elected by a board of directors and pay a membership fee of 25¢. Each member agrees to save at least 25¢ per month towards the purchase of a $5 share. In most instances savings may be withdrawn at any time, but 60 days' notice may be required if the board deems it necessary. Dividends on shares are limited to 6%; they are voted annually by the majority of the members voting at the annual meeting, on recommendation of the board, from the balance of earnings remaining after expenses are paid and a reserve of 20% of net earnings (and all fees and fines) is set aside for bad loans. Dividends are paid only on shares fully paid on December 1 which are outstanding on December 31, in proportion to the number of whole months they are fully paid; they may either be paid or credited to members' accounts, at the board's discretion. In 1950, 15% paid no dividends, but 67% paid 3% or more. Since credit union members are

not insured, they have experienced some losses, but these have been extremely small.

Loans are confined to members for provident and productive purposes. The interest charge may not exceed 1% per month on unpaid balances, but small fines may be assessed for delinquency; the maximum charge on a $100 loan repaid in 12 equal monthly instalments is $6.50. The term may not exceed 2 years, and partial repayments are usually required every pay day. The maximum loan is ordinarily $100 if unsecured and $200 if secured, but a credit union with an unimpaired capital and surplus in excess of $2,000 can lend 10% of that sum to one borrower. Funds that are not loaned are either deposited in a bank insured by the F.D.I.C., invested in direct or fully guaranteed obligations of the United States, invested in shares of federal savings and loan associations, or loaned (up to 25% of unimpaired capital and surplus) to other credit unions. At the close of 1950, 16% of the total assets of federal credit unions were in United States government obligations, 65% in loans, 10% in cash, and 4% in federal savings and loan shares. Undivided profits equalled 6% and reserves for bad loans over 3% of total assets. The reserves equalled 5% of loans outstanding, although losses charged off to that date had amounted to only $1\frac{1}{100}$ of 1% of the amount loaned.

"The object of the credit union is not profit," says the Bureau of Federal Credit Unions, "but service to its members." It is typically small in size; at the close of 1950 half the total assets of federal associations were held by units with assets of less than $250,000, and over half the units had assets of between $2,500 and $50,000. The credit union relies heavily for its success upon the close contact among and the interest of an active membership. Thus each federal credit union has an educational committee to enlist active membership participation, besides a board of 5 or more directors, officers, a credit committee of 3 or more members, and a supervisory (auditing) committee of 3 members. Much of its service is volunteered by the members or provided by the employer. Its importance lies in the training it affords members in business methods, self-government, and prudent management of family finances, rather than in its accumulation of large amounts of capital.

Trust Companies and Trust Departments

FUNCTIONS, RESPONSIBILITIES, AND SERVICES.—Trust companies hold a larger volume of investments for others than any other type of financial institution. They operate under strict regulation. and will be surcharged by the courts for losses that may result from negligence on their part. Trust companies provide a variety of services. varying from mere custodianship to full management.

Operations of trust companies are discussed at length under Trusts and Custodianship.

Investment Companies

NATURE AND PURPOSE.—An investment "trust" or "company" is defined by the **Investment Company Act of 1940** as one engaged in the business of investing, reinvesting, owning, holding, or trading in securities (defined to exclude government securities and securities of

majority-owned subsidiaries which are not investment companies) having a value exceeding 40% of its total assets (exclusive of government securities and cash items). Exceptions made by the law include security underwriters, distributors and brokers, banks, insurance companies, savings and loan associations, small loan companies, public utility holding companies, and charitable corporations, as well as companies demonstrating to the satisfaction of the S.E.C. that their primary business is of another kind. Popular terminology in many cases has improperly classified as investment companies enterprises that are holding companies or which carry on a finance or security business.

An investment trust or company proper is an agency by which funds of a number of participants are combined and invested in diversified securities so as to distribute the risk and introduce the "law of averages" in protecting principal. In some cases, it also provides expert management. It aims at the safe and profitable employment of the funds while avoiding, for the participants, the direct responsibilities of control, finance, and management, which they would otherwise bear in connection with investing their funds.

Characteristics of Investment Companies.—The investment trust has the following general characteristics:

1. It raises capital by issuing shares, frequently preferred as well as common, or, in some cases certificates of beneficial interest. Moreover, the investment trust commonly borrows by issuing bonds within certain well-defined restrictions, and occasionally in other ways.
2. It invests the funds so obtained in a greater or lesser variety of securities in order that the "law of averages" may operate in protecting the portfolio.
3. It usually avoids controlling interests and so limits its participation in any one security that directive and managerial responsibilities are not assumed.
4. Other than in the case of fixed trusts it undertakes continuing supervision of the investment fund on much the same principles as those which any conscientious trustee enjoying discretionary powers should apply in caring for moneyed estates.
5. It endeavors to obtain for its shareholders a return considerably in excess of that ordinarily received on investments of comparable safety. This is accomplished in the case of the typical successful investment trust as the result of most or all of the following:
   a. The favorable average interest and dividend yield which the trust may enjoy through careful selection of securities, which tends to be higher than could be obtained with equal safety if the capital were not sufficient for adequate diversification of risk;
   b. The balance of cash profits on sales of investment securities which normally result from managerial alertness;
   c. The spread between the cost of capital obtained through issuance of bonds or preferred shares and the actual earnings made by investing and reinvesting this capital; and
   d. The consistent accumulation of earning reserves and surplus, built up by regularly appropriating to them a portion of net income.

However, the investment trust cannot be expected to avoid losses in a declining market, since it neither liquidates completely nor sells short. Capital loss in a bear market must, with rare exception, be anticipated.

INVESTMENT PROFITS.—Well-equipped investment companies commonly realize capital gains on their investments, as well as interest and dividends. These result from taking advantage of broad market movements or from the purchase of particular undervalued securities. The following circumstances, among others, have been taken advantage of by successful investment trusts in increasing their investment profits:

The Age Factor.—Between the intrinsic value of some new issues and estimates of value which an uninformed public puts upon them, there is occasionally a broad margin. If the issue is fundamentally sound, the process of "seasoning" which broadens marketability frequently enhances the price of a security out of proportion to any concurrent gain either in safety or income. British investment trusts have long been in the habit of acquiring securities at what proved an economic profit by subscribing at the time of underwriting, or by purchasing at a substantial deduction from even the underwriters' figures in cases where a new issue of merit for some reason is not at first favorably received. The Investment Company Act permits American investment trusts to engage in underwriting as well as reorganizations, and the S.E.C. calls attention to "their potential usefulness in the supply of new capital to industry, particularly to small and promotional ventures," but notes that to date investment companies have not made use of the provision. On the contrary, American trusts have typically bought only seasoned issues.

The Risk Factor.—One reason why new issues are so frequently undervalued when compared with "seasoned" securities is the undue exaggeration of risk in the mind of the average investor by a sense of newness or unfamiliarity. The investment trust, however, is in a position to weigh risk more objectively. The result is advantageous purchases when market prices are depreciated out of all proportion to any reasonable risk premium. A well-managed investment trust can avoid losses involved in purchasing overvalued "legals" (eligible for savings bank and trustee investment) and certain classes of "gilt-edged" investments, prices of which have been raised by the artificially concentrated demand to levels unwarranted by their comparative safety.

The Capital Market Factor.—The familiar circumstance that general levels of security prices, and the average rates of return on invested capital, vary from market to market and from country to country reflects variations in the demand for and the supply of capital in different centers. To what extent these differences in security prices between markets at any one time are due to varying risk, real or imaginary, and to what extent they may be attributed to comparative scarcity or otherwise of loanable capital is the business of the investment trust to fathom.

Price trends among groups of securities representing different branches of commerce and industry often show wide variations within one country at the same time. This factor of price spread between different classes of commodities and different categories of securities is of the utmost importance in investment trust management.

The Credit Cycle Factor.—No institutional investor can afford to neglect the differences in average yield on invested capital from time to time in the same country. Such changes in interest rates over a term of years tend to have a periodic character, and are intimately associated with the business cycle. They affect in different ways market values of fixed and variable income securities. In times of business prosperity, rising interest rates have often tended to depress bonds, though the greater safety of underlying assets, the larger earnings of the issuers, and the general buoyancy of the stock exchanges may exert a contrary influence on many issues. Common stocks, on the other hand, benefit markedly from rising earnings and brighter prospects at such times. In times of business recession, the contrary has usually been the case, and the relative attractiveness of stocks and bonds is reversed.

The Government Factor.—Since the early 1930's, government has played a vastly increased role in business. Price control and allocations of materials have exercised a major influence upon earnings, as have drastic changes in taxation. The alert investment trust can both avoid the pitfalls and seize the opportunities created by the resulting changes in security prices and yields.

EXTENT OF MANAGERIAL DISCRETION.—The great majority of investment trusts leave considerable discretion to their directors in investing and reinvesting the capital entrusted to their charge. The British trusts place very few restrictions upon directors. General investment restrictions are frequently adopted among American trusts, but in most cases a large degree of freedom prevails.

Distribution of risk ranges from the broadest diversification to a spreading of risk merely within the specific investment field to which a portfolio is limited. In some instances, interests are concentrated in a single industry or in several related industries, while some primarily handle common shares and others fixed yield securities.

The most common stipulation among British investment companies is that not more than 5% or 10% of the issued share and debenture capital shall be invested in any one security or undertaking. Many American trusts follow a similar practice.

CLASSIFICATION OF INVESTMENT COMPANIES.—Investment companies in the United States are classified by the S.E.C. as follows:

1. Management investment companies, both closed-end and open-end.
2. Unit or fixed and semi-fixed trusts.
3. Periodic payment plans.
4. Companies issuing face amount instalment certificates.

Patterned upon British models, the investment trust has emerged as an important financial institution in the United States only within the last 20 years. The market crash of 1929 brought to an end a period of feverish promotion that had begun in 1927 and was marked by the investment by the American public in all types of investment trusts of almost $7,000,000,000. The substantial losses suffered by closed-end management companies discredited them and accelerated the rise of other types. Both open-end management companies and unit trusts

rapidly increased sales of their securities after 1930, and the other two types also attracted some attention. More recently, unit trusts have fallen from favor; their creation was halted and further sales of shares in existing trusts largely ceased, a number having been converted into open-end management companies. As of June 30, 1951, according to the S.E.C., the total assets of all registered investment companies equalled $5,600,000,000 in value. The National Association of Investment Companies estimates that, at the close of 1951, 138 companies representing 90% of the total for all publicly held diversified investment companies had total net assets (including bonded debt and bank loans) of $4,072,000,000 and 1.372,000 shareholders. The 103 open-end funds had assets of $3,130,000,000 and the 35 closed-end companies had assets of $942,000,000.

Management Investment Companies.—Management investment companies have no or only limited restrictions on the investments which they may make. They may be classified according to several criteria:

1. Method of operation—closed- vs. open-end companies.
2. Capital structure.
3. Investment policies.

1. **Closed-end companies.** These have a relatively fixed amount of capital. Their shares are bought and sold in the market through brokers, and are usually listed on a stock exchange. **Open-end** company shares are sold to investors through investment dealers authorized by the company, at asset value plus a stated sales commission. They can be resold to the company at asset value, less a nominal redemption fee in some cases. Thus the shares of closed-end companies sell at varying relationships to asset values, while those of open-end companies are tied to asset values. The net asset value of open-end shares is usually calculated twice daily, and the initial selling charge averages 7%. One concern may sponsor several companies.

2. **Open-end companies.** Generally issue a single class of shares, while closed-end companies mostly have senior capital (bonds and/or one or more classes of preferred stock) and are known as **leverage** companies, although some have only common stock outstanding. Leverage is the speculative advantage (or disadvantage) obtained by the use of senior capital. It represents trading on the equity—borrowing money to make more money. In a rising market, the practice causes the asset value of the common stock to appreciate more rapidly percentagewise than the trust's assets. But leverage also works in reverse. For trusts with senior capital, the declining market after 1929 served to magnify the drop in the asset value of common shares.

To take a simple illustration, a company has $20,000,000 in total assets and its capital is represented by $10,000,000 of preferred stock and $10,000,000 of common (one million shares). If total assets rise in value 50% to $30.000,000, the entire increase of $10.000,000 will accrue to the common stock, whose equity then becomes $20,000,000, a gain of 100%. The asset value per share would rise from $10 to $20. Conversely, if total assets drop 50% in value, the common stock equity is entirely wiped out and a further decrease would impair the preferred also. But if the market should rise again, the common stock can stage

a comeback. Strictly speaking, in considering leverage there should be deducted from the working assets of the company static assets such as cash, high-grade bonds, and nonspeculative preferred stocks.

Leverage shares move faster than the market for two reasons: first, the leverage, and secondly, the premium or discount at which they usually sell. In prosperous periods, many leverage shares command a premium over asset value, whereas in depressions they mostly go to discounts. In part, the discount reflects the market's appraisal of management and the dividend policy. The premium commanded by high leverage shares with little or even negative asset value reflects its worth as a virtual option on a portfolio of securities above market prices.

The Investment Company Act restricts leverage. Closed-end companies must have assets equal to at least 3 times debt to borrow more, and/or twice preferred stock to sell additional senior shares. Open-end companies cannot issue senior securities, but may contract bank loans provided their assets equal 3 times such debt.

Management trusts are incorporated mostly under general corporation laws and, in a few states, under the banking laws. There are no special provisions governing investment companies under the latter laws. In the early days of investment trust development, a number operated as **common law trusts,** and some continue to be so organized. Especially has this been true of Massachusetts.

Both closed- and open-end companies approach their investment problems in a similar way. The former generally have a more flexible investment policy, since open-end managements are more eager for continuity and regularity of income to facilitate continued sales of their shares. Most closed-end company portfolios consist primarily of common stocks, and turnover of holdings by the leading companies averaged 44% of the total in 1944. While the majority of open-end company portfolios consist entirely or predominantly of common shares, investment policies vary widely. Some concentrate on diversified blue-chip common shares, some on lesser known growth or low-priced common shares, and some on shares in a single favored industry. Others try for a balanced portfolio in which a large proportion of the funds is placed in bonds and preferred stocks of good grade, while some concentrate on bonds or preferred stock. Certain trusts seek to remain fully invested at all times, while others try to catch the market swings.

Open-end funds are now classified under four main headings. The most important are the all common stock funds, which seek to be fully invested in common stocks at all times. These trusts emphasize the **selection** of security purchases more than the **timing.** A second class is the balanced funds, which seek to hold bonds and preferred stocks, on the one hand, and common stocks on the other, in varying amounts reflecting the state of the market. While few undertake to apply any particular formula plan to time purchases and sales of stocks, the pattern of their portfolio policies resembles that of investment managers who utilize formula plans to guide their buying and selling decisions. The objective is to buy stocks on a scale down, and to sell stocks on a scale up.

A third class of open-end funds limits itself to a particular group of securities, such as chemicals or natural gas issues. The fourth is limited to bonds and preferred stocks, avoiding the risk of equity investment altogether. The specialized and fixed income security trusts are relatively small in size as compared with the other two classes of open-end investment companies.

All investment trusts provide the investor with the advantages of diversification, selection, and continuous administration of securities. The investor pays for these valuable services ordinarily through a loading charge that is added to the price at the time of purchase and through an annual deduction from the investment income of a sum to defray the cost of operation and of the services of a management or sponsoring organization.

3. Diversified and nondiversified companies. The Investment Company Act distinguishes between these. A diversified company is a management company at least 75% of whose assets are represented by cash and cash items, government securities, securities of other investment companies and other securities, in which holdings of the securities of one issuer do not exceed 10% of the outstanding securities of the issuer or 5% of its own total assets.

4. Common trust funds. Similar to open-end management trusts are the commingled or common trust funds administered by some banks and trust companies. Such funds combine a number of small trusts, with each constituent trust participating in both assets and income according to its size. The purpose is to effect diversification, to facilitate efficiency in management, and to secure a more stable income. Use of the device by national banks is regulated by the Board of Governors of the Federal Reserve System (Regulation F), which recognizes 3 kinds of funds—for investment of small amounts, for general investment, and for mortgage investment.

Unit or Fixed Trusts.—A fixed trust is created under the terms of a trust indenture, contract of custodianship or agency, or similar instrument between a corporation (the "depositor"), a bank or trust company (the "trustee"), and the investors (the "certificate holders") who are the beneficial owners of the trust property. There is no board of directors. The depositor places with the trustee identical units of securities ("underlying property") of specified composition, and against each unit, representing an undivided interest therein, the trustee issues to the depositor a specified number of redeemable trust certificates which are sold to the public. For example, 2,000 certificates may be issued against each unit of 4 shares of the stocks of 28 corporations and the dividends and other property accumulated thereon. The offering price of a trust share is determined by dividing the total value of the underlying property by the number of trust shares issuable against each unit, and adding to the result a "load" averaging 9% for charges and profit. The Investment Company Act requires that the trustee or custodian must be an institution with minimum capital, surplus, and undivided profits of $500,000.

Unit or fixed trusts have been replaced by open-end trusts as a vehicle for broad popular investment in equities in recent years.

Periodic Payment Plans.—Appearing early in 1930, these were in essence devices for selling investment trust securities on a periodic or instalment plan basis. The holder of a periodic payment plan certificate is entitled to receive only the market value of his certificate, which is based on the market value of the securities held by the investment trust underlying the certificate. Most plans provide that payments (in some cases, as low as $5 per month) be made to a trustee bank over a 10-year period, which amounts, less service charges, are used to purchase trust shares (usually fixed or semi-fixed) to be held for the investor's account by the trustee. Loading charges under the plan, which are relatively heavy, are in addition to loading charges on the trust shares and are usually deducted from the payments made in the early months of the contract. During these early months, too, lapses tend to be frequent, so that 40% of the total amount payable on periodic payment plan certificates sold during the years 1930–1935 had lapsed at the end of 1935. The Investment Company Act limits the sales load to 9%, forbids deduction of more than half the first 12 monthly payments to cover the sales load, fixes minimum initial payments at $20 and subsequent payments at $10, and requires that contracts be redeemable.

Companies Issuing Face Amount Instalment Certificates.—Issued only by a few large companies, these certificates, in essence, are unsecured obligations to pay either a stated sum to the holder at a specified future date, provided he makes all payments required by the contract, or a cash surrender value prior to maturity upon surrender of the certificate. Lapses tend to be high, especially during the first and second years when the surrender value is small or nonexistent, although some plans permit reinstatement with credit for the amount paid in. As a result of the variety in regulatory provisions of the many states in which such companies may operate, there is no uniform reserve system required by law. The Investment Company Act sets minimum cash capital of companies organized on or after Mar. 15, 1940 at $250,000, requires maintenance of adequate reserves (duly computed in specified ways), and sets cash surrender values and rights of holders in event of default.

ACCOUNTING PROBLEMS.—Under the Investment Company Act the S.E.C. is given authority to provide by rule and regulation for a reasonable degree of uniformity in accounting policies and principles followed by registered investment companies in maintaining their records and preparing financial statements required by law.

Every registered investment company is required to file both quarterly and annual reports in prescribed form with the Commission. In addition, the Commission receives copies of the reports made to the stockholders at least semiannually. In practice, many companies make quarterly reports. The annual report must be certified by independent public accountants selected by the directors and approved by the stockholders at the annual meeting. It must contain the following items:

1. A balance sheet accompanied by a statement of the aggregate value of investments on that date.
2. A list showing the amounts and values of securities owned on that date.
3. A statement of income, itemized for each category of income and expense exceeding 5% of total income and expense.
4. A statement of surplus, itemized for each charge or credit exceeding 5% of total charges or credits.
5. A statement of aggregate remuneration paid:
   a. To all directors and to all members of any advisory board as regular compensation.
   b. To each director and to each member of an advisory board for special compensation.
   c. To all officers.
   d. To each person of whom any officer or director is an affiliated person.
6. A statement of aggregate dollar purchases and sales of investment securities other than government securities.

Figs. 3, 4, and 5 reproduce the balance sheet (item 1 above), the statement of ordinary income (item 3), and the statement of surplus (item 4) of a closed-end management company. In lieu of a balance sheet, open-end companies are permitted to show a statement of assets, a statement of changes in net assets, and a statement of net asset values per share and dividends paid for the 3 preceding fiscal years. Fig. 6 reproduces the statement of net assets of an open-end company and Fig. 7 the statement of changes in net assets. This form has been termed the "narrative," in contrast to the conventional form of report.

The following comments may be made on these exhibits:

1. Basis on which investments are carried. The Lehman Corp. uses average cost; the Massachusetts Investors Trust uses market and thus includes unrealized appreciation. The difference in practice is related to the fact that the one is closed- and the other open-end in character. But both also note valuation on the other basis.
2. Sources of surplus. The Lehman Corp. distinguishes between capital surplus (which may arise from original subscriptions by stockholders, reduction of par or stated value of the stock, or from repurchase of shares at less than book value) and earned surplus (or deficit). It further distinguishes between earned surplus arising from current investment income and that arising from realized capital gains and losses and recoveries on assets charged off, after deducting dividends paid from each source. Bearing in mind the fact that the shares of the Massachusetts Investors Trust were issued continuously at various prices (reflecting changes in net asset values), its statement furnishes comparable information, though arranged in a different manner.
3. Sources of income and dividends. British investment companies have traditionally ignored profit and loss on security sales in their income accounts, using profits to reduce the valuation at which the security holdings are carried in the balance sheet. Thus, other than in depression years the portfolio valuation is actually understated. In their earlier years American companies generally avoided such a rigid policy, but as early as 1931 the New York Stock Exchange recommended that profits and losses on security transactions be excluded from the income account and credited instead to a reserve or a special surplus account. A management company is now required to disclose the sources from which dividend payments are made—what portion comes from net income, from net profits on

THE LEHMAN CORPORATION

Balance Sheet as of close of business, December 31, 1951

ASSETS

CASH AND RECEIVABLES:			
Cash in Banks		$ 1,727,467.58	
Receivable for Securities Sold		33,497.00	
Dividends Receivable and Interest Accrued		473,372.44	$ 2,234,337.02
U. S. GOVERNMENT OBLIGATIONS (at average cost)			13,111,891.39
OTHER SECURITIES (at average cost):			
Bonds (market value $ 591,250)		$ 566,750.00	
Preferred Stocks (market value $ 1,518,000)		1,079,687.89	
Common Stocks (market value $121,775,445)		53,261,058.62	54,907,496.51
MISCELLANEOUS INVESTMENTS AND ADVANCES (see list of securities)			4,299,657.48
REAL ESTATE INVESTMENT			1.00
			$74,553,383.40

LIABILITIES

NOTES PAYABLE FOR SECURITIES PURCHASED			$ 38,859.81
RESERVE FOR ACCRUED EXPENSES AND TAXES			125,971.60
CAPITAL STOCK AND SURPLUS:			
Capital Stock:			
Authorized:			
2,500,000 shares, $1.00 par value			
Outstanding:			
2,076,562 shares	$ 2,076,562.00		
Capital Surplus	88,650,450.23	$90,727,012.23	
Net Realized Profit on Investments and Special Dividends Paid (Debit)	$21,430,542.87		
Undistributed Net Ordinary Income	5,092,082.63	16,338,460.24	74,388,551.99
			$74,553,383.40

NOTE:

Of the Corporation's assets as of December 31, 1951, the cash and receivables and securities taken at market quotations, amounted to	$139,220,312.95
and the assets having no market quotations, but appraised at fair value in the opinion of the directors, amounted to	5,594,495.00
	$144,814,807.95
Less—Allowance for State and City taxes on unrealized appreciation	555,000.00
	$144,259,807.95
Costs of assets as above	74,553,383.40
Net unrealized appreciation	$ 69,706,424.55

No allowance has been made for Federal income taxes on unrealized appreciation, as the Corporation has elected to be taxed as a "regulated investment company." As such, it is relieved of Federal income taxes to the extent that capital gains realized during the fiscal year are distributed within the time limit prescribed by the provisions of the Internal Revenue Code. It is the present intention to distribute substantially all of such gains.

NOTE:

The Corporation has purchase commitments under which it may make investments which will not exceed $1,015,000. In addition, the Corporation is contingently liable to the extent of a maximum of $1,270,000 in connection with guarantees which were made as a part of two purchase contracts.

FIG. 3. Balance Sheet of Closed-End Management Investment Company

security sales, and from paid in surplus or other capital sources. The date from which the accumulated undistributed income and net security profits must be calculated is either the date of organization, the date of reorganization, the date of write-down of portfolio in connection with corporate readjustment approved by stockholders, or January 1, 1925.

THE LEHMAN CORPORATION

Statement of Ordinary Income

For the Six Months Ended December 31, 1951

Income:		
Interest on U. S. Government Obligations	$ 121,116.71	
Interest on Bonds and Notes	33,761.01	
Cash Dividends	2,537,058.21	
Income from Mineral Interests	72,564.22	$2,764,500.15
Operating Expenses:		
Compensation—Officers and Employees	$ 177,064.46	
Contribution to Employees' Retirement Plan	41,290.03	
Directors' Fees	7,000.00	
Management Compensation	62,500.00	
Registration, Transfer, Custody of Securities, Insurance, Legal, Auditing, Reports, etc.	45,780.31	
Rent, Electricity, etc.	17,847.86	
Franchise and Miscellaneous Taxes (see note 1)	19,852.31	
Miscellaneous	38,236.28	409,571.25
Net Ordinary Income		$2,354,928.90

NOTES:

(1) No provision has been made for Federal income taxes, as the Corporation has elected to be taxed as a "regulated investment company" and it is the present intention to distribute substantially all of its taxable net ordinary income and capital gains realized during the fiscal year within the time limit prescribed by the provisions of the Internal Revenue Code.

FIG. 4. Statement of Ordinary Income of a Closed-End Management Investment Company

TAXATION.—When an investment company is taxed as an ordinary corporation its shareholders are penalized as compared with investors who invest directly in securities. There is then triple instead of double taxation of income—not only to the corporation originally earning it and to the investment company's stockholders, but also to the investment company. The Internal Revenue Code now enables an investment company to eliminate the added tax burden. It will be ob-

THE LEHMAN CORPORATION
Statement of Surplus
For the Six Months Ended December 31, 1951

CAPITAL SURPLUS

Balance, June 30, 1951		$80,703,482.67
Excess of proceeds of $8,160,231.87 over par value of $129,785 ($1.00 per share) with respect to 129,785 previously unissued shares of Capital Stock sold during the period	$8,030,446.87	
Less—Expenses in connection with the shares sold	83,479.31	7,946,967.56
Balance, December 31, 1951		$88,650,450.23

UNDISTRIBUTED NET ORDINARY INCOME

Balance, June 30, 1951		$ 4,813,715.73
Net Ordinary Income (per Statement of Ordinary Income)		2,354,928.90
		$ 7,168,644.63
Less—Dividends Declared from Net Ordinary Income		2,076,562.00
Balance, December 31, 1951		$ 5,092,082.63

NET REALIZED PROFIT ON INVESTMENTS AND SPECIAL DIVIDENDS PAID

Accumulated Net Realized Profit on Investments from date Corporation commenced business, September 24, 1929, to June 30, 1951		$24,945,079.88
Special Dividends declared during previous years by reason of profit realized on investments during those years		46,661,619.51
Balance, June 30, 1951 (Debit)		$21,716,539.63
Net Realized Profit on Investments for the six months ended December 31, 1951	$908,965.36*	
Less—Dividend Declared from Profit on Investments	622,968.60	285,996.76
Balance, December 31, 1951 (Debit)		$21,430,542.87

* This net profit has been computed on the basis of average cost. However, for Federal income tax purposes, capital gains and losses are determined by identifying the cost of each certificate sold and, on this basis, the net capital gain (long-term) for the six months ended December 31, 1951 was $799,030.69.

FIG. 5. Statement of Surplus of a Closed-End Management Investment Company

served that both the Lehman Corporation and the Massachusetts Investors Trust have elected to be taxed as "regulated investment companies."

To obtain tax exemption, an investment company must meet certain requirements:

1. It must elect irrevocably to be a "regulated investment company" and meet certain qualifications.

2. It must distribute each year at least 90% of its net income (interest and dividends). On the amount retained it pays a tax of 38%. On the amount distributed it pays no tax, but the shareholder instead is taxed on the amount received by him at the same rate as if the income of the company has been realized by him from his own direct investments. The same is true of any distributions representing long-term capital gains. On retained capital gains, however, the company pays a flat 25% tax.
3. The company has the same rights as an individual to deduct from capital gains capital losses carried over from prior years.

Investment companies which do not elect to be "registered investment companies" are taxed at the same rate as ordinary corporations.

MASSACHUSETTS INVESTORS TRUST
Statement of Assets and Liabilities
December 31, 1951

ASSETS

Investments at market quotations, including $899,478 dividends declared on stocks selling ex-dividend..... (Average cost per books $253,584,413; cost for federal income tax purposes $255,877,449)	$426,484,049
United States Treasury bills due in January, 1952, at cost plus discount earned	3,997,316
Cash in banks, demand deposits.....	7,285,437
Receivable for investments sold.....	293,690
Receivable for shares sold.....	818,825
	$438,879,317

LIABILITIES

Payable for investments purchased.....	$850,687	
Payable for shares repurchased.....	144,545	
Employees federal taxes withheld.....	3,872	
Federal stamp tax and social security taxes....	6,472	1,005,576
Net assets based on carrying investments at market quotations, equivalent to $37.80 per share for 11,583,925 shares of $1.00 par value each (see analysis of principal).....		$437,873,741

NOTE—During the year 1951 the Trustees distributed all of the taxable income of the year, including realized net gain on investments less capital loss carry-over, and believe the Trust complied with the provisions of Section 361 of the Internal Revenue Code available to investment companies. Accordingly no provision is believed necessary for federal income tax.

In subsequent years the Trustees intend to distribute each year all of the taxable income derived from dividends and interest received on securities, to distribute from principal net taxable gains, if any, realized on investments reduced by any applicable net capital loss carry-over and to comply with the provisions of Section 361 of the Code, in which case, under tax regulations now in effect, no federal income taxes will be incurred. Therefore, no allowance for federal income taxes has been made in the financial statements in respect of unrealized appreciation of investments at December 31, 1951.

FIG. 6. Statement of Net Assets of an Open-End Investment Company

MASSACHUSETTS INVESTORS TRUST
Statement of Changes in Net Assets
(On the basis of carrying investments at market quotations)
Year Ended December 31, 1951

NET ASSETS December 31, 1950:		
Principal	$362,147,792	
Undistributed net income (excluding gain or loss on investments)	159,410	$362,307,202
INCOME:		
Net income for the year as per statement	$ 20,482,445	
Net amount for participation in undistributed net income included in the price of shares sold and repurchased	116,590	
	$ 20,599,035	
Less ordinary dividends of $1.84 per share	20,602,872	
Decrease in undistributed net income		(3,837)
REALIZED NET GAIN ON INVESTMENTS (determined on basis of average cost)	12,879,929	
Less special distribution of $1.10 per share from net gain on sales of investments paid in shares of the Trust or, at the election of shareholders, in cash	12,379,840	500,089
INCREASE IN UNREALIZED APPRECIATION OF INVESTMENTS		50,539,636
TRUST SHARES SOLD AND REPURCHASED:		
Receipts for 1,091,994 shares sold and $8,720,297 for 245,021 shares issued in distribution of net gain on sales of investments, on account of principal	47,732,773	
Cost of 642,024 shares repurchased and retired, on account of principal	23,202,122	24,530,651
NET ASSETS December 31, 1951:		
Principal	$437,718,168	
Undistributed net income (excluding gain or loss on investments)	155,573	$437,873,741

FIG. 7. Statement of Changes in Net Assets of an Open-End Investment Company

Only 15% of dividend income is taxable, and distributions to shareholders are tax exempt to the recipient, as a return of capital, to the extent that net income is offset by capital losses (not offset in turn by earned surplus accumulated since organization). Common law or Massachusetts trusts are generally considered corporations for tax purposes.

Most unit trusts are so organized as to be classified as pure trusts. The unit trust advises beneficiaries how much of the annual income is taxable to them, and the several tax classifications of that income, including interest, dividends, capital gains, tax exempt income, etc.

In connection with state franchise and income taxes many questions arise, chiefly in allocating income and assets within or without the taxing state or states. Shares of investment companies, even though classified as pure trusts, are subject to original revenue stamp taxes and transfer stamp taxes in the same manner as shares of corporations.

The Attorney General of the State of New York has ruled that for the purpose of the New York State stock transfer tax, the tax on the transfer of trust certificates is to be based upon the underlying stocks represented by the certificates.

REGULATION.—During the 1920's investment trusts were subject to no special legislation. The blue sky laws of the various states covered sale of their securities to the public, while on June 6, 1929 the New York Stock Exchange through its Committee on Stock List issued tentative requirements for the listing of investment trust securities of the general or management type, which were revised April 22, 1931. These made certain requirements as to annual reports, accounting methods, and practice. In May, 1931, it further laid down certain requirements with regard to the association of member firms with investment trusts of a fixed or restricted character, whether in connection with organization, management, or distribution of their securities.

The S.E.C. undertook an exhaustive study of investment trusts between 1935 and 1941, on the basis of which Congress enacted the **Investment Company Act** of 1940. This Act regulates companies which do not come under the purview either of the Securities Act of 1933 or the Securities Exchange Act of 1934, and goes beyond these measures which rely upon publicity to correct abuses and deficiencies.

The **general purposes and provisions of the Act** have been stated by the Commission in its 10th Annual Report as follows:

1. Honest and Unbiased Management. The Act provides for a degree of independence in management personnel by restricting bankers, brokers, commercial bankers, principal underwriters, etc., who may have a possible bias in the management of the company, to a minority of the board of directors. It also requires a minority of the board to be independent of the officers of the company. It prohibits self-dealing and exaction of excessive commissions by affiliated persons of investment companies. Insider trading in the securities of investment companies is subject to the same regulation as that contained in the Securities Exchange Act of 1934. It enables the Commission to sue in the Courts to prevent gross abuse of trust and gross misconduct and grossly unfair plans of reorganization of investment companies. It makes embezzlement of investment company funds a federal offense, and prevents investment bankers and other affiliated persons from using their investment companies to assist them in their underwriting activities. It provides that an investment company may maintain its portfolio securities and other property in its own custody or in the custody of brokers only under or pursuant to the regulations of the Commission. Otherwise portfolio securities must be maintained in the custody of a bank. The Act also provides for bonding of employees having access to the company's assets.

2. Greater Participation in Management by Security Holders. The Act requires investment companies in their registration statements to designate their status as a diversified or non-diversified company as defined in the Act and to set forth therein a precise statement of their investment policies. The status and policies of a company as set forth in its registration statement cannot be changed without an affirmative vote of a majority of the security holders. The Act also requires at least two-thirds of the directors of an investment company to have been elected by the shareholders; restricts the period of effectiveness of management contracts to two years; and requires the approval of such contracts, and therefore in effect of the investment adviser, by the shareholders. The Act also requires ratification of the selection of the accountants of the company by the

shareholders; investment company proxy solicitation is subjected to Commission regulation whether or not the company is listed; it is further provided that all shares issued by management companies after the effective date of the Act must be voting shares and requires preferred shares to contain provisions transferring voting power to the holders of such stock in the event of default in the payment of dividends.

3. Adequate and Feasible Capital Structures. The Act restricts, in the case of closed-end management companies, the amount of bonds and preferred stock which may be issued, a restriction which, speaking generally, requires closed-end investment companies issuing senior securities to have at least 50% of their assets represented by common stock equity at the time of issuance of such securities. Only one class of bonds and one class of preferred stock may be issued. Open-end companies are not permitted to issue any senior securities but may contract bank loans provided a 300% coverage in assets for such loans is maintained at all times. In the case of face-amount certificate companies the Act requires new companies to have a minimum capital of at least $250,000 and to maintain statutory reserves presumably adequate to mature the certificates. Restrictions are placed on the power of face-amount certificate companies to declare dividends where the effect of such declarations may be to injure the financial stability of such companies. In addition, face-amount certificate companies are not permitted to issue preferred stocks without an order of the Commission.

4. Financial Statements and Accounting. The Act requires investment companies to transmit financial reports containing prescribed information to their security holders at least semiannually. Power is given the Commission to obtain annual and periodic reports including financial statements. The Commission is also empowered to enact rules requiring the preservation of books and records which form the basis of such reports; to require financial statements sent to shareholders and the Commission to be certified by independent public accountants; and to promulgate uniform accounting rules.

5. Selling Practices. Particularly in the case of open-end companies, periodic payment plans and face-amount certificate companies, numerous abuses in selling practices were disclosed. These the Act remedies in general by requiring investment companies which were not previously required to comply with the registration requirements of the Securities Act to so comply. The Commission is also empowered to correct selling practices of open-end companies which may result in dilution of their shares or in unfair trading profit to insiders and dealers. "Switching" of open-end investment company securities and those of unit investment trusts and face-amount certificate companies on a basis permitting reloading is prohibited in the absence of an order or rule of the Commission. In addition, sales literature issued by face-amount certificate companies, open-end companies and unit investment trusts which would include most periodic payment plans, must be filed with the Commission within 10 days after use. Finally, in the case of the Securities Act prospectuses of face-amount certificate companies and periodic payment plans the Commission is empowered by Section 24 (c) of the Act to rearrange the form and items of such documents and to require summaries of information which can be prominently displayed in the prospectus. The Act also regulates the sales load which may be charged on periodic payment plan certificates and prescribes the form of trust indenture to be used and the charges which may be made by trustees and sponsors of unit-investment trusts including those issuing periodic payment plan certificates.

By and large, these objectives are achieved by affirmative statutory requirements or prohibitions, which the Commission's rules and regulations serve to implement. Remedies provided are in part criminal

and in part injunctive. The Commission is also authorized to prepare advisory reports upon plans of reorganization of registered companies upon request of the companies or 25% of their stockholders, and to seek to enjoin plans it deems grossly unfair.

National Association of Investment Companies.—Restoration of the investment trust field to public favor has been aided by this trade association, which embraces practically all the active management investment companies in the country. It works with the S.E.C. on basic rules, forms, and interpretative problems raised by the law; in cooperation with the state securities commissions it has prepared what is in effect a sales literature code for the guidance of investment company security distributors; it has participated in discussion of tax legislation affecting investment companies; and it has undertaken to broaden the scope of the industry's relations with the public. Unit trusts have no similar organizations; their selling practices, however, have been the subject of voluntary action through observance of the code of fair practice of the National Association of Securities Dealers, Inc.

INVESTMENT COUNSEL.—The investment counsel is engaged in giving continuous advice on the investment of funds in the light of the individual needs of each client. It serves both individuals and institutions, normally takes no custody of securities, and rarely assumes sole responsibility for the management of an account. Fees are either a fixed sum or a certain percentage of the aggregate value of the accounts managed. The percentage often varies inversely with the size of the account and averages less than one-half of one per cent on large accounts.

The Investment Advisers Act of 1940.—This Act was based on a report by the S.E.C., which is authorized by this statute to supervise investment advisers. The Act covers all individuals or organizations who for compensation engage in the business of advising others, either directly or through writings, as to the value of securities or the advisability of investing in, buying, or selling securities, or who for compensation and as part of a regular business disseminate analyses or reports concerning securities. It covers securities services as well as investment counsel, but exempts publications such as newspapers and magazines of general and regular circulation; brokers and dealers who give advice incidentally and gratuitously; banks; certain bank holding company affiliates; those who confine their advice solely to United States government obligations; and attorneys, accountants, engineers, and teachers whose advice is purely incidental. Persons not exempt from the Act must register with the S.E.C. except those who advise solely investment and insurance companies, individuals whose clients are residents of the same state and who give no advice with respect to securities traded on national securities exchanges, and those who have fewer than 15 clients and do not represent themselves to the public generally as investment advisers.

The S.E.C.'s duties with respect to registration of investment advisers are substantially similar to its duties relating to registration of over-the-counter dealers and brokers under the Securities Exchange Act. The registration statement for investment advisers includes in addition

the education of the principals of the firm and their business affiliations during the preceding 10 years, although the Commission does not pass upon the qualifications of advisers. Semiannual reports are required as to any changes in the business conducted.

The investment adviser cannot act as principal for his own account, or as broker for another, in a transaction with his client without first disclosing the fact to his client and obtaining the latter's consent. Use of the term "investment counsel" is confined to registered investment advisers engaged in the work defined above and whose application so states. The S.E.C. is granted authority to investigate violations of the Act and to obtain information by subpoena. However, it does not have power to inspect books and records. In the event that violation is disclosed, it may set punitive machinery in motion and may seek to enjoin violators and, under specific conditions, may deny or revoke registration.

The investment adviser emerged as an independent occupation only after the first World War. Of the 1,057 investment adviser registrations of all types effective on June 30, 1951, approximately 258 confined themselves to supervising clients' investments, while 341 rendered service chiefly through publications and 235 were also registered as brokers and dealers. As of mid-1944 less than 20% of the registrants had been in business before 1919, and over 85% had begun their investment adviser activities after 1930. The scale of their operations is shown by the S.E.C. report that 51 of these advisers helped to manage almost $4,000,000,000 of assets in 1936–1937.

Life Insurance Companies

INVESTMENT ASPECTS OF LIFE INSURANCE.—Life insurance is commonly regarded by the individual policyholder as a kind of savings. Most life insurance policies combine investment with insurance or protection elements. Technical aspects of life insurance are covered in the discussion of insurance. Here we consider life insurance policies only as an investment for savings.

The investment aspect of life insurance arises from the use of the **level premium plan,** under which the insured pays the same premium year after year. Mortality risk rises with age; the insurance premium should increase correspondingly. Under the level premium plan, however, during the earlier years the insured pays a larger premium than required for mortality risk alone, the excess going into a reserve that covers a part of the face value of the policy. These excess payments accumulate in the reserve at compound interest, for they are invested in securities or mortgages. This **legal reserve** gives the policy its **cash surrender value** if relinquished by the insured, and its **loan value** if he wishes to borrow against it. Some companies make a deduction from the reserve during the early policy years to cover acquisition expense.

The legal reserve is actually an investment, rather than an insurance, fund. Life insurance may be regarded as:

1. A program to save a specified amount in a specified period of time, to which has been added a supplementary agreement providing that the beneficiary shall receive that sum even though the insured shall die within the time specified.

2. A sinking fund designed ultimately to replace the economic value of a life.
3. A plan whereby decreasing term insurance (Fig. 8) is combined with increasing investment accumulations to provide a constant sum for the beneficiary. As the investment element, the reserve, mounts, the pure insurance or protection element falls.

Basis—$1,000, 2½% interest on reserves. American Men Ultimate Table.

	Investment Element (Reserve)			Insurance Protection		
	Ordinary Life	20-Payment Life	20-Year Endowment	Ordinary Life	20-Payment Life	20-Year Endowment
Net annual premium..	$20.37	$30.12	$41.81	.....	.....	.....
40...	84.11	137.52	201.50	$915.89	$862.48	$798.50
45...	175.22	291.36	430.45	824.78	708.64	569.55
50...	270.90	462.70	692.41	729.10	537.30	307.59
55...	368.21	655.71	$1,000.00	631.79	344.29	0
60...	463.96	707.89		536.04	292.11	
65...	554.94	757.46		445.06	242.54	
104...	$1,000.00	$1,000.00		0	0	

Single Premium

	Whole Life	20-Year Endowment
Net single premium.....	$455.05	$631.55
At age 50, reserve.....	602.67	886.67
protection.....	397.33	113.33

Fig. 8. Investment and Insurance Elements of Leading Forms of Policies (Issued at Age 35)

Investment Element Varies with Form of Policy.—The investment element differs in the different forms of policy, as follows:

1. **Term insurance.** Policies provide for payment of their face value only if death occurs within a stipulated period, nothing being paid in case of survival. Although long-term policies (for example, running over 20 years) may have a slight cash value during part of their life, the investment element is negligible. Therefore neither term nor group or industrial insurance will be considered further here.

2. **Whole life insurance.** Policies, whether purchased by premiums payable throughout life (termed ordinary life or straight life policies) or during a limited period or until earlier death (such as 20-payment life policies), promise payment of the face value to the beneficiary if the policyholder dies at any age. The legal reserve under such a policy reaches the face amount at the limiting age of the mortality table, i.e., the age at which the oldest person is presumed to die. Most insurers, therefore, pay the face value to the policyholder if he lives to that age. All such policies involve a large measure of investment.

3. Endowment insurance. Differs from whole life in that the maturity is set for some lesser age, ordinarily one which most policyholders hope to attain, such as 60 or 65, or 10 to 25 years after issuance of the policy. Payments are made over a shorter period than in whole life insurance, and they contain a greater—in fact, a major—investment element. Endowment insurance is sometimes called "insured savings" because there is assurance that the goal of the savings program will be reached for the family, whether or not the insured lives to enjoy it.

These differences between the different forms of policy are illustrated in the accompanying table. The investment element bulks largest in the endowment policy and least in the ordinary life policy.

PREMIUMS AND DIVIDENDS.—Obviously, the size of the annual premium, which covers both investment and protection, varies with the type of policy. Because of the shorter period of payments, $1,000 face amount of insurance costs more per annum for an endowment than for an ordinary life policy issued at the same age. Both because of the shorter period of payments and the greater mortality risk, the premium on a policy increases as the age of the insured at time of issue rises. Finally, a 10-year endowment policy costs materially more per annum than does a 30-year endowment issued at the same age, but it makes little difference in the investment, as contrasted with the protection, phase of the contract whether the insured be 25 or 50 years old when he takes out a 10-year endowment policy.

Premium rates are based on careful actuarial computations based on mortality tables, anticipated income from reserves and a **loading charge** for expenses of selling and operation. They differ materially among companies.

Participating Feature.—Life insurance policies are ordinarily **participating.** The **dividends** paid holders of participating policies reflect more favorable mortality experience, larger investment income and smaller operating expenses than were anticipated in the computation of premiums. These dividends are thus, in a sense, a refund of excess premium collections. Many policyholders take their dividends in cash, regarding them as a reduction in the premium, while others use them to buy paid-up additional insurance, thereby purchasing single-premium policies corresponding in type and maturity to the original commitment. A third group of policyholders leaves the dividends with the company to accumulate at interest, which is equivalent to establishing a savings account and does not increase the protection element at all. A final choice is to reduce the age at which the policy becomes paid up or matures, but not its face amount; this is known as an accelerated option.

Dividend payments differ among companies. In comparing the relative cost of life insurance in individual companies, average dividends may be deducted from premiums to give the **net cost** of the life insurance policies provided.

SETTLEMENTS OF POLICIES.—Insurance policies may be settled by the insured if he wishes to cease premium payments, or with beneficiaries when the policy becomes a claim.

Ceasing Premium Payments.—In the event that a policyholder finds it necessary or desirable to cease premium payments, he may

either **surrender the policy for its cash value,** continue the insurance in a reduced amount with no further premium payments as **"paid-up" insurance,** or continue the insurance in full for a **limited term** at the end of which all protection ceases. If he selects the first alternative and "cashes in" the investment element of his insurance, he in effect treats the insurance as an endowment policy maturing at that time for a reduced amount; if he chooses the second alternative, he treats it as a limited payment life insurance policy for a lesser amount; in the third alternative, he applies the investment element in the policy, represented by the cash value, to the purchase of term insurance for the face amount of the policy.

Policy Settlements with Beneficiaries.—Such settlements are of several kinds:

1. **Lump-sum.** A single lump-sum payment in cash to the beneficiary is most common. In some cases, payment may be made to a financial institution for the beneficiary under a trust agreement.

2. **Interest payments.** The company may hold the proceeds as a principal sum payable either at the death of the payee, at the expiration of a designated term of years or, at prior death of the payee, to a designated person or persons, meanwhile paying interest at a fixed rate, or at a minimum guaranteed rate with a higher rate if earned.

3. **Annuities.** The proceeds may be used to purchase a single-premium straight life annuity or an instalment refund annuity without participation in excess interest earnings. A joint and two-thirds survivorship annuity provides that, when either beneficiary dies, the survivor receives reduced payments. Whatever the form, as with any annuity, regular periodic payments (usually monthly) are provided sufficient to exhaust the proceeds of the policy and any income accumulating thereon.

4. **Monthly life-income payments.** A life income may be provided, through payment of equal monthly instalments for a number of years certain (such as 10 or 20) and as much longer as the payee may live. This option uses part of the proceeds to purchase an income for a fixed period, and part to purchase a deferred life income beginning at the end of that period and continuing as long as the payee lives thereafter. Usually the fixed period income only participates in excess interest earnings, and often that portion alone is **"commutable"** (can be withdrawn) at any time.

5. **Equal monthly instalments.** The company may pay equal periodic instalments (usually monthly) of specified size, as long as the proceeds plus interest thereon last, or equal monthly instalments for the number of years elected.

PLACE OF LIFE INSURANCE IN INVESTMENT PICTURE.—During the depression, when adverse economic conditions caused an increase in lapses and forced many policyholders to readjust their life insurance programs, some critics favored divorce of the investment from the insurance elements of life insurance policies. They urged the purchase of decreasing-term life insurance from an insurance company, and investment either directly or through an investment institution of the sum thereby saved in premium expense,

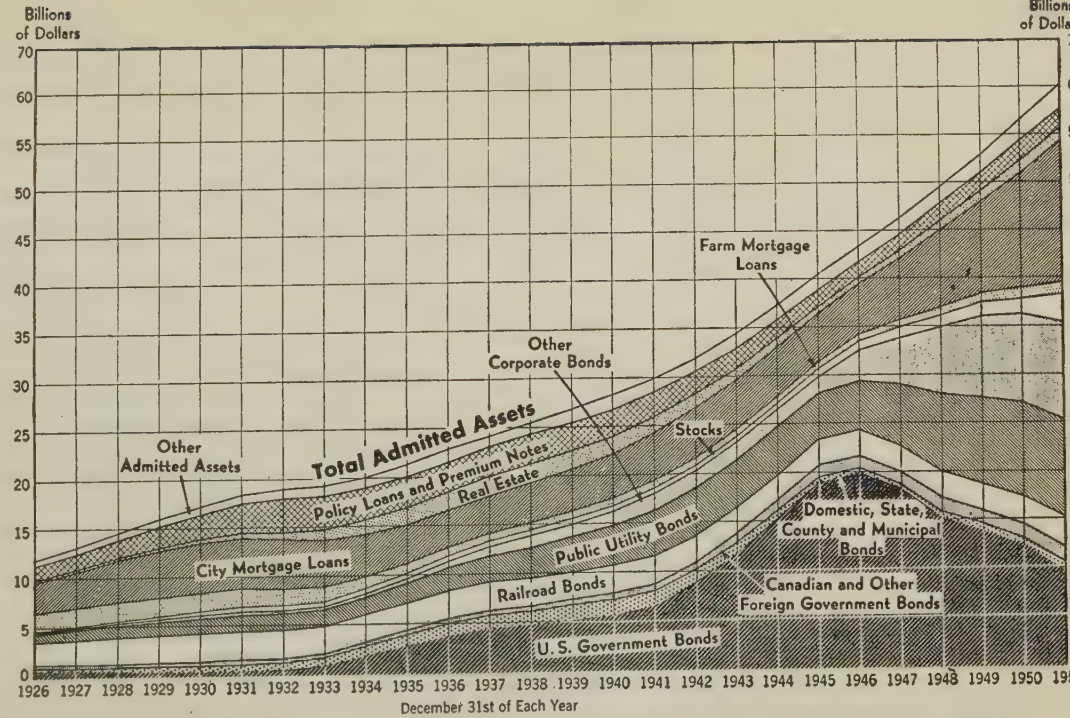


FIG. 9. Growth of Life Insurance Assets (of companies holding from 87.9% to 91.5% of all U. S. legal reserve companies)

Dec. 31	Farm Mortgages	Other Mortgages	Total Mortgages	U. S. Government Bonds	State, County, and Municipal Bonds	Canadian Government Bonds
1940	$ 790,915 (2.8)*	4,556,248 (16.1)	5,347,163 (18.9)	5,494,491 (19.4)	1,779,097 (6.3)	562,562 (2.0)
1945	669,367 (1.7)	5,042,927 (12.4)	5,712,294 (14.1)	18,959,872 (46.8)	573,173 (1.4)	1,178,490 (2.9)
1946	677,601 (1.6)	5,341,851 (12.3)	6,019,452 (13.9)	19,922,624 (45.9)	459,192 (1.1)	1,263,093 (2.9)
1947	731,914 (1.6)	6,467,944 (13.9)	7,199,858 (15.5)	18,292,286 (39.5)	445,162 (1.0)	1,279,038 (2.7)
1948	840,846 (1.7)	8,083,503 (16.3)	8,924,349 (18.0)	15,216,621 (30.7)	640,791 (1.3)	1,376,911 (2.8)
1949	984,839 (1.9)	9,591,286 (18.1)	10,576,125 (20.0)	13,782,258 (26.1)	753,709 (1.4)	1,374,528 (2.6)
1950	1,155,816 (2.0)	12,115,270 (21.5)	13,271,086 (23.5)	12,019,388 (21.3)	820,142 (1.5)	1,360,072 (2.4)
1951	1,350,000 (2.2)	14,750,000 (24.5)	16,100,000 (26.7)	9,750,000 (16.2)	850,000 (1.4)	1,405,000 (2.3)

Dec. 31	Other Foreign Government Bonds	Total Government Bonds	Railroad Bonds	Public Utility Bonds	Other Bonds	Total Bonds
1940	$ 5,893 (0.0)	7,842,043 (27.7)	2,922,249 (10.3)	4,031,805 (14.3)	1,485,331 (5.3)	16,281,428 (57.6)
1945	6,103 (0.0)	20,717,638 (51.1)	2,672,658 (6.6)	4,758,677 (11.8)	1,792,067 (4.4)	29,941,040 (73.9)
1946	8,928 (0.0)	21,653,837 (49.9)	2,619,897 (6.0)	5,108,898 (11.8)	3,195,604 (7.4)	32,578,236 (75.1)
1947	17,516 (0.0)	20,034,002 (43.2)	2,642,545 (5.7)	6,343,437 (13.7)	4,814,830 (10.4)	33,834,814 (73.0)
1948	18,343 (0.0)	17,252,666 (34.8)	2,764,896 (5.6)	7,975,599 (16.1)	6,972,633 (14.1)	34,965,794 (70.6)
1949	17,729 (0.0)	15,928,224 (30.1)	2,766,529 (5.3)	8,888,940 (16.8)	8,450,909 (16.0)	36,034,602 (68.2)
1950	20,636 (0.0)	14,220,238 (25.2)	2,894,271 (5.1)	9,619,720 (17.0)	9,295,240 (16.4)	36,029,469 (63.7)
1951	20,000 (0.0)	12,025,000 (19.9)	3,000,000 (5.0)	10,175,000 (16.9)	11,125,000 (18.5)	36,325,000 (60.3)

Dec. 31	Total Stocks	Policy Loans and Premium Notes	Real Estate	Cash	Other Assets, Less Assets Not Admitted	Total Admitted Assets	
						Of the 49 United States Companies	Of all United States Companies
1940	$ 523,550 (1.9)	2,756,875 (9.7)	1,833,639 (6.5)	946,284 (3.3)	593,354 (2.1)	28,282,293	30,802,155
1945	734,257 (1.8)	1,722,972 (4.3)	731,110 (1.8)	619,377 (1.5)	1,042,655 (2.6)	40,503,705	44,797,041
1946	936,475 (2.2)	1,658,281 (3.8)	659,383 (1.5)	569,642 (1.3)	960,925 (2.2)	43,382,394	48,190,796
1947	1,119,761 (2.4)	1,691,792 (3.7)	749,595 (1.6)	824,357 (1.8)	919,745 (2.0)	46,339,922	51,742,987
1948	1,187,574 (2.4)	1,796,387 (3.6)	931,938 (1.9)	733,935 (1.5)	1,015,736 (2.0)	49,555,713	55,511,882
1949	1,358,954 (2.6)	1,928,152 (3.6)	1,102,036 (2.1)	703,303 (1.3)	1,165,265 (2.2)	52,868,437	59,629,541
1950	1,635,714 (2.9)	2,063,223 (3.6)	1,277,725 (2.3)	788,477 (1.4)	1,447,083 (2.6)	56,512,777	64,019,686
1951	1,775,000 (3.0)	2,200,000 (3.7)	1,450,000 (2.4)	800,000 (1.3)	1,550,000 (2.6)	60,200,000	68,500,000

(000 omitted from amounts) * (Figures in parentheses show percentage ratio to total investments)

FIG. 10. Investments of 49 United States Legal Reserve Life Insurance Companies

on the ground that specialized investing agencies would achieve better results. The companies and state supervisory authorities hold that the need for safety in life insurance requires investments of the type they make. Moreover, they argue that many persons would not save unless subject to the pressure of meeting fixed periodic premium payments. Furthermore, the average annual premium, they pointed out, does not exceed $100, which is by no means adequate for profitable investment.

There can be no question that life insurance as now set up causes millions of people to save huge sums that they would otherwise spend upon current consumption. The very effective way in which life insurance is sold and the pressure upon the policyholder for regular payments, and for paying off policy loans, promote personal investment on a large scale. The primary duty of each individual is obviously to secure an adequate amount of insurance to protect his dependents, and if necessary this should be in the lowest-cost types of policies. But over the long run very many persons have benefited by purchasing higher-premium limited payment and endowment policies, thereby utilizing the life insurance companies for the investment of part or all of their savings on a regular, systematic basis.

LIFE INSURANCE COMPANIES AS INVESTORS.—Because they gather far larger sums yearly for investment than any other type of savings institution, the life insurance companies exercise a major influence upon the bond and mortgage markets. The bulk of premium income consists of renewal premiums on old policies, and so is relatively stable. Life insurance companies also have large current investment income, and face the need of reinvesting sums received by them in redemption of matured bonds and as amortization payments on mortgages. After the payment of death benefits and other outlays, there is a large annual addition to reserves that must be invested, for premium rates assume earnings of 2½% or more on reserves. Providing a market for several billion dollars of securities and mortgages annually, for the investment of such additional reserves, the life insurance companies are a major factor in appraising the prospective demand for investments.

Laws governing life insurance company investments are generally a good deal more flexible than those regulating investments of savings banks. The bulk of investment funds of life insurance companies has been placed in government obligations, real estate mortgages, and corporate bonds, but they have also acquired considerable amounts of preferred and guaranteed stocks, and small amounts of common stock.

The Life Insurance Association of America publishes details yearly on changes in investments of the life insurance companies, as shown in Figs. 9 and 10. A study of changes in insurance company holdings from year to year indicates the volume and type of investments being absorbed by these institutions.

SECTION 8

PROMOTION

CONTENTS

PAGE

Promotion and Promoters

Stages of promotion 349
Promoters 349
Types of promotion 350
Compensation of promoters 351
Legal status of promoters 352

Pre-Incorporation Contracts

Acceptance by corporations 353
Liability of contracting parties 353
Agreements among incorporators 353
Trustees' contracts 354
Option contracts 354
Launching the enterprise 355

Sources of Capital

Sale of stock 355
Borrowing 356
Special sources of capital 356

The Promotion Report

Data included 357
Estimating demand 357
Estimates of income and expense 358
Estimate of income and expense for a year's operations (*f.* 1) .. 359
Survey of competition 358

PAGE

Validity of patents 359
The estimated investment 359
Organization costs 359
Cost of fixed assets 360
Working capital 360
Initial losses 360
Availability of property required 360
Labor 361
Promotion report pitfalls 361
Management 361

Financial Plan for a Promotion

The basic problems 361
The amount of securities to be issued 362
Estimating earnings of a new business 362
Determining the capitalization 362
Capitalizing the small close corporation 363
Choice of securities 364
Limitations upon the choice of securities 364
Investors' preferences 364
The nature of the business 364
The phase of the business cycle .. 365
Legal investment regulations 365
Government regulation 365
Control 365
Flexibility of the financial plan 365
Sale of securities in units 365

SECTION 8

PROMOTION

Promotion and Promoters

STAGES OF PROMOTION.—The steps taken in launching a new business are commonly described as promotion. At the outset there is only the **conception** of an **undertaking offering possibilities for profit.** Careful investigation is required to determine whether prospective earnings would be adequate on the estimated amount of capital necessary to establish the new enterprise as a going concern. The results of this inquiry may be embodied in a promotion report for subsequent presentation to investment bankers whose aid is desired in financing, or directly to investors if the new business is to be privately financed. If investigation indicates realization of an attractive return and if capital can be raised, further promotion steps are justified.

The next step is **assembly** of facilities and organization required. All steps necessary to place the business in operation are taken; the corporate charter secured, options obtained on properties needed, machinery purchased, inventory procured. The final stages are financing and commencement of operations. Promotion as such ceases when operating management takes over.

PROMOTERS.—The functions of a promoter have been defined by a court as follows:

> In a comprehensive sense "promoter" includes those who undertake to form a corporation and to procure for it the rights, instrumentalities and capital by which it is to carry out the purposes set forth in its charter, and to establish it as fully able to do its business. Their work may begin long before the organization of the corporation, in seeking the opening for a venture and projecting a plan for its development and may continue after the incorporation by attracting the investment of capital in its securities and providing it with the commercial breath of life. (Old Dominion Copper Mining Co. v. Bigelow, 203 Mass. 159.)

Another definition found in a decision of the United States Supreme Court is:

> A promoter is one who seeks opportunity for making advantageous purchases and profitable investments in industrial and other enterprises, who interests men in such a project when found, organizes them into a corporation for the purpose of "taking over" the project, and attends upon the newly formed company until it is fully launched in business. (Dickerman v. Northern Trust Co., 176 U. S. 181, 1900.)

No enterprise of any size can be inaugurated without a capable promoter, whoever he may be. He is the man who sees the opportunity,

who can make others see it and believe in it, who plans the successive steps, and pushes them to completion. Some men have made promotion their life vocation. Such a man was Charles R. Flint, who took part in the promotion of such varied enterprises as the United States Rubber Corp., the Sloss-Sheffield Steel Co., the National Starch Co., and perhaps a hundred others. Far more often, however, a business is promoted by the men who intend to remain with the concern and manage it. They act as promoters only temporarily, to launch a business that they want to remain with indefinitely. Occasionally investment bankers, lawyers, engineers, accountants, brokers, local bankers, and business executives act as promoters of a new enterprise that appeals to them as promising.

The promoter of a new enterprise may be an **inventor.** But the inventor is often a man of mechanical skill and originality without the business experience or acumen needed to build a business around his invention. The successful promoter above all else needs sound economic judgment and a broad background of business experience. As Dewing (Financial Policy of Corporations) expresses it, "He can probably set values on the invention in terms of cold facts of costs and the inflexible law of supply and demand, for he knows that many excellent inventions are worthless from the business point of view because of prohibitive costs of production or restricted demand."

TYPES OF PROMOTION.—There are four principal types of promotion.

1. The promotion of an enterprise in a new field.
2. The promotion of an enterprise in an established industry.
3. The promotion of a public corporation to take over an existing privately owned business.
4. The promotion of consolidations of existing enterprises.

If the new concern is to enter a new field presenting a new product or service, great care must be exercised in estimating costs and selling prices, for there is no past experience of other concerns to furnish guidance. Sometimes it is best to have a new product manufactured by others under contract and sell it in a limited territory to ascertain the demand. Sometimes a product is so new that a demand must be created, and considerable advertising and selling expense will have to be incurred for this purpose.

Thought must be given also to the prospective competition after a demand has been brought into existence by costly effort. Patents should be broad enough to prevent infringement or imitation, for should the new enterprise show great profits, competition will quickly develop if it is possible for others to enter the field. A service is more difficult to protect, and here trade names and copyrights are of great value and should be protected by registration.

When a new concern intends to enter an older industry where there are a number of established competitors, the results realized by these businesses and the relation of aggregate productive capacity to existing and potential demand should be analyzed. Careful study of financial statements of competitors, where available, will furnish a valuable guide in planning the new enterprise. To win a market readily the new product should have features not possessed by competitors which can be used for sales arguments, or it may be offered at lower prices. Unless

the new concern is able to cut production costs below those of its competitors they are likely to meet lower prices.

Outstandingly successful closely held or privately owned enterprises attract promoters who see an opportunity to form a new corporation to take over the existing concern and sell shares to the general public. Occasionally investment bankers are approached by the owners and asked to undertake the promotion and financing of a new concern so that these original owners may retire. Death of the original owners may be the reason for public sale, as was the case in the promotion of the Dodge Brothers, Inc. to take over the assets and business of Dodge Motor Car Co.

A key problem in this type of promotion is often the finding of a new management in whom the public will have confidence. When the Cream of Wheat Co. became a publicly owned enterprise this problem was solved by prevailing upon members of the old company to sign management contracts which would insure their remaining with the new concern for some years. The problem of management was not satisfactorily solved in the Dodge Brothers case until merger with the Chrysler Corp. several years later.

The promotion of a consolidation is more complex because it involves bringing together a number of existing concerns by some means of combination. Managements or owners of the concerns involved have to be approached and the terms upon which each will come into the combination agreed upon. Directors of a going concern lack the power to bind stockholders to such an agreement, so it is necessary for the directors to submit the plan to the stockholders, the approval of two-thirds being required by most state statutes. The problems involved lead into the field of intercorporate relations.

Promotion of a business through consolidation of existing enterprises gives a number of advantages. The constituent concerns are in existence and their value to the combination can be appraised. Reported earnings of the constituents furnish a guide to the showing they are likely to make in the future. From among the several managements the executives most likely to prove successful in running the new concern can be selected. Because the old enterprises are known to the public and the combination is likely to result in a relatively large business, financing is facilitated. This type of promotion is often initiated or conducted by investment bankers who have facilities for extensive investigations and whose prestige may be an important factor in bringing about an agreement to consolidate.

COMPENSATION OF PROMOTERS.—A promoter can be compensated in several ways. He may be allotted common stock, an allowance of 10% of the initial capital stock not being unusual. Thus he shares the risk, for a time at least, of the enterprise he has initiated. The professional promoter is not always interested in retaining his stock for long, since to realize a cash income from his efforts he must dispose of a large part, if not all, of the stock he receives after a promotion has been completed.

To avoid diluting the stock in the early stages of the enterprise and to secure a possible larger eventual return, promoters may take their compensation in the form of **option warrants** giving the right to buy

common stock at a stated price, usually a larger number of shares than they would have received had they accepted stock as compensation. The option price may be lower, the same, or higher than the offering price without tax disadvantage since there is no income until the options are exercised. Should the stock rise in price the gain may be long-term gain and taxed at such rates. Where the promoter is part of management, gains would be treated as long-term where held for the required time period only if the terms of the option meet the requirements of the Revenue Act. Occasionally, both stock and warrants are issued as compensation to promoters.

Compensation may consist also of a contract to manage the business or, in the case of lawyers, engineers, and accountants, of professional retainers for their services.

Promotion involves large risks. There is always danger that, after considerable time and money have been expended, the promotion will have to be abandoned because some factor will develop making it inexpedient to go further. This explains why rewards for successful promotions must be very large.

LEGAL STATUS OF PROMOTERS.—The relation of promoters to the corporations which they promote has been defined in a long line of court decisions. A promoter of a corporation not yet in existence is not an agent, for there is no principal, nor is he a trustee in the ordinary sense, for he may not hold any property in trust. Nevertheless, the courts have held that a fiduciary relation exists between a promoter and the corporation, and many of the rules that apply to a trustee have been applied to his dealings on behalf of the new enterprise and in his final settlement with the corporation after it has been formed. Promoters are bound in their dealings with the new corporation to make a complete **disclosure** of all material facts arising out of the promotional service performed on its behalf. They may make no secret profits at the expense of the corporation. There is no objection to a promoter making a profit so long as full disclosure is made to a board of directors which is independent and not under the control of the promoter. If it is found that a promoter has made secret profits, the corporation may return property received and sue to rescind the contract, it may retain the property and sue for return of the secret profits, or it may sue for damages.

The federal **Securities Act of 1933** may directly affect the liabilities of a promoter if the corporation is being publicly financed and thus comes under the provisions of the act. Both criminal and civil liabilities are provided for one who wilfully violates any provision of the Securities Act or the rules and regulations made thereunder, or who wilfully makes an untrue statement or omits to state a material fact in the registration statement. The activities of a promoter may make him subject to statutory penalties if he participates in the sale of securities without having first complied with the Act, or if he sells securities with the aid of a prospectus or other oral or written communication which contains an untrue statement or omission of a material fact. He may also be held liable to purchase of the securities if he signs the registration statement or if he is named in the statement as being or is to become a director.

All states except Nevada have so-called **Blue Sky laws,** enacted to protect purchasers of securities. Promoters are affected by these laws in their efforts to raise money within a state. Thus, filing or registration fees for security dealers, salesmen, and brokers are levied in most states, both as a revenue measure and as a regulatory device. A number require qualification of securities to be offered for sale, particularly those not listed on exchanges, through submission of factual statements to a state officer or commission before the issue can be sold legally in the state. Promoters may find that they are affected by the provisions of these laws in the financing of the new enterprise, and should take steps to comply with them.

Pre-Incorporation Contracts

ACCEPTANCE BY CORPORATIONS.—A new corporation may, once its organization has been completed, accept contracts made on its account before its incorporation. Acceptance of such contracts may be expressed or implied. If the corporation accepts the benefits of a contract, it is liable thereon without express recognition or formal acceptance. (See Gardiner v. Equitable Office Building Corp., 273 Fed. 441, 448.)

The foregoing is the general rule in this country. In Massachusetts, however, as in England, the courts have held that a corporation is not under obligation to take over and assume liability on a contract made when it is not in existence by a person who presumed to act as its agent. A contract made prior to incorporation is construed only as an offer to the corporation that it may or may not accept. The corporation, if its directors when elected see fit, may make a new contract on the same terms, which must be complete in itself. A corporation may accept the benefits of a contract made on its behalf before incorporation, but it is then held liable in Massachusetts only for the benefits it has received, not on the contract itself.

LIABILITY OF CONTRACTING PARTIES.—Parties who enter into contracts on behalf of a corporation yet to be organized will themselves be personally liable thereon, in the absence of an expressed understanding to the contrary, until assumption of the contract by the corporation. If there is any doubt as to ultimate organization of the corporation or its acceptance of the contracts, the promoters should make their agreements contingent upon such organization and acceptance of the contracts, if they do not want to assume personal responsibility. Otherwise, they may be sued individually for damages that could reach large sums.

AGREEMENTS AMONG INCORPORATORS. — A **contract among the incorporators** of a business may be entered into, defining the nature of the proposed corporation, its purposes, and often details of its organization and management. Pre-incorporation agreements affect the corporation only so far as the interested parties are able to control the corporation after it has been formed.

Mere verbal understandings with regard to incorporation, if not carried out, usually result only in the refusal of the aggrieved party to

proceed further. Such agreements do not ordinarily furnish sufficient basis for litigation. Even formal agreements between promoters as to the provisions to be inserted into a charter can rarely be specifically enforced, and the only recourse of the aggrieved party is to refuse to participate in the organization of the corporation. If actual damages can be shown, needless to say, a person damaged may bring suit against the offending parties for breach of contract.

TRUSTEES' CONTRACTS.—When organization of a new corporation is contemplated, a trustee or trustees may be appointed by the promoters to accept contracts and so make binding subscriptions to the stock of the corporation or other agreements entered into before its organization. Such trustees may collect payments on subscriptions, make disbursements on behalf of the new enterprise, and in some cases actually carry on the undertaking that is to constitute the business of the projected corporation until such time as the corporation itself has been organized and its management assumes control of the going business. Contracts made by trustees are subject to the same rules as other pre-incorporation agreements. The trustees enjoy the advantage of control over the organization of the corporation, and accordingly they can see to it that contracts they have entered into are properly assumed by the corporation before control passes out of their hands.

When contracts are entered into by trustees on behalf of a proposed corporation and that corporation is not actually organized, their status will depend upon the circumstances in each case. **Subscriptions to stock,** even if irrevocable, would be automatically terminated. If any payments were made to the trustees on the subscriptions, the unexpended balance remaining will be reclaimed for the pro rata benefit of subscribers. Unless there was an understanding to the contrary, and especially if the trustees were the cause of the failure to incorporate, they might be held personally responsible for the expended portion of the subscription money **Other contracts,** if clearly made on behalf of the proposed corporation, would in most cases be terminated. If not so clearly made, parties acting for the corporation might be held liable for specific performance or damages for nonperformance. Subscribers may under some circumstances be held **liable as partners** for expenses incurred in an unsuccessful attempt to form a corporation. Thus, when a projected incorporation failed of consummation, the court said: "Under the facts disclosed in this case, the corporation had no existence; there was simply an unmatured intention of the parties to form a corporation . . . there being no responsible principal, the associated parties must be held liable as partners." (Furniture, etc., Co. v. Crawford, 127 Mo. 156, 364.)

OPTION CONTRACTS.—When a promotion involves the acquisition of large and expensive properties or existing concerns, the promoters are not in a position to buy these assets out of their own resources. On the other hand, unless their acquisition is assured, it may not be practical to proceed with the promotion, and especially to undertake public financing of a new corporation whose success is dependent upon the ownership of properties yet to be acquired. This dilemma can be solved by securing **options** on the required properties, if possible to run for several months. Usually, for a consideration the promoter obtains

from the property owner, the optioner, the exclusive right to buy the property for a specified price, with power to assign the right. The promoter, as optionee, then transfers the right to the corporation, thereby giving assurance to investors in the new corporation that the property can be purchased through exercise of the option within the time limit specified therein.

State laws usually provide that an option to buy real property may be recorded, generally in the office of the clerk of the county where the property is situated. When so recorded, the optionee is protected against the possibility of sale of the property to a third party by the optioner before the option has been exercised or expires. Should the optioner refuse to sell the property when the optionee or his assignee offers to exercise the option, the latter can sue for specific performance in a court of equity.

LAUNCHING THE ENTERPRISE.—In smaller promotions, the promoters or their representatives personally seek subscriptions from prospects to stock of the projected corporation. To promote a large enterprise, the procedure frequently followed is to incorporate and then offer the desired number of shares to the public through investment bankers, who are compensated for their services. For issues of $300,000 and more offered for sale publicly, registration under the Securities Act and compliance with the provisions of that statute are required. A prospectus in the form specified by the regulations of the Securities and Exchange Commission must be provided subscribers to the stock, whether it is offered by promoters or by investment bankers. Deliberate misstatements or omissions of material facts subject those responsible to liabilities, both criminal and civil.

It is not always necessary to wait until the securities of a new enterprise have been sold to the public before acquiring property and beginning business. A block of stock may be sold privately to the promoters or others before the underwriting, to finance initiation of the enterprise. If sold to a small group located in one state, such a **private sale** is exempt from the Securities Act registration and other requirements in connection with security selling. Under existing rulings, a registration statement need not be filed for stock issues of less than $300,000, although the SEC must be advised of such sales. Where investment bankers buy the issue outright, they usually pay for it promptly, providing funds to commence operations.

Sources of Capital

SALE OF STOCK.—The principal source of funds to start most new corporate enterprises is the sale of stock. Promoters may personally sell stock to a few friends, relatives, or other prospects, in the case of a smaller business. Subscribers are usually asked to sign a subscription agreement in which they contract to subscribe to stock when the corporation has been formed. While courts in some jurisdictions have held that such contracts are enforceable because the mutual promises of the several subscribers to purchase stock are sufficient consideration, the weight of authority does not consider these contracts binding until the corporation has actually been formed and has accepted the subscription.

Rather, the subscription is construed to be only a continuing offer to purchase until then. To assure that pre-incorporation stock subscriptions are enforceable, they are often made payable to the promoter as trustee. This creates an enforceable contract between the trustee and the subscriber. (Horseshoe Pier, etc. Co. v. Sibley, 157 Cal. 442.)

After the corporation has been organized, stock subscription procedure is simple. Formal acceptance of the offer to buy stock on the part of the board of directors creates a binding contract of the subscription, obligating the subscriber to pay the agreed price for the shares. In large corporations, the stock to be sold may be purchased outright by investment bankers for resale to the public, or bankers may act as agents for the corporation in obtaining subscriptions.

The price at which it is desired to sell each share of stock is the factor determining how many shares the corporation will issue to raise a given amount of capital. For example, should the bankers believe that sales can best be effected within a price range of $20–$30 per share, they may decide on a price of $25. If similar issues sell at 8 times earnings, the stock to be offered should have earning power of about $3 a share. If indicated net earnings approximate $120,000 annually, the corporation could sell 40,000 shares, in which event it would report net income of $3 per share. If par value shares are to be sold, the par can then be set at or below the expected selling price of $25.

BORROWING.—A new, untried venture cannot rely as a rule upon borrowing money for a major source of initial financing, except in the acquisition of real estate. Even where borrowing is possible, it is usually not prudent, since a new business should not be burdened so early with fixed interest charges and debt maturities if it can be avoided. Where real estate is purchased, a usual practice is to give a mortgage on the realty acquired as part of the purchase price.

Banks will ordinarily lend for working capital needs as they develop, beyond the basic working capital requirements of the business. They will usually finance acquisiton of inventories if it can be shown that the loan will be self-liquidating, particularly if this inventory does not have to be replaced immediately upon its sale.

In the financing of combinations of existing enterprises whose credit has already been established, on the other hand, borrowing presents no problem. Mortgage and debenture bonds can be sold readily where established earning power covers interest by an adequate margin and outstanding debt is not large. The same holds true of the public financing of a business previously closely held. Having a business history as a going concern, its credit can be appraised and part of the initial funds obtained by selling bonds.

Many new concerns of small size borrow from industrial lenders, small loan companies, factors, and other sources charging relatively high rates of interest. The cost of such funds may make their use burdensome, except where earning power is so substantial that interest on borrowings constitutes a minor cost factor.

SPECIAL SOURCES OF CAPITAL.—Commercial bankers in smaller communities may want to attract new enterprises which will increase employment and bring business to the bank. They are often willing, therefore, to lend their personal efforts to interest local resi-

dents and business men to invest in a promising new enterprise, and to furnish part of the working capital the new enterprise will need after it has been launched. Some small communities even pay cash bonuses to attract industries to their communities. Local boards of trade and chambers of commerce have sometimes aided in promoting sales of stock of a promising new promotion among their members for the same reason.

Some investment companies have helped to finance promising new promotions by purchasing and holding their securities for considerable periods of time. There are firms in centers like New York and Boston, several of substantial means, that specialize in providing funds for new ventures, taking stock for their investment. Sometimes, groups of men of means are formed to invest on this basis in newer enterprises.

The federal government, to aid returning servicemen to start a business, provided in the Servicemen's Readjustment Act of 1944 for guaranteed loans to persons who had served in the military or naval service of the United States on or after September 16, 1940. These **G. I. loans,** and others available through federal agencies, are a source of capital through government financing agencies.

The Promotion Report

DATA INCLUDED.—Results of the **preliminary investigation** into a proposed new enterprise are ordinarily set down in a report which can serve as the basis for a decision whether to proceed with the project, as well as a means for interesting others in the proposition. Such a report may be prepared by a promoter for presentation to investment bankers, or the report may be prepared by representatives of the bankers assigned to the work of investigation. Facts disclosed by the report, if the proposition is acceptable, will provide material for the prospectus prepared for investors.

The data included in the report will vary with the nature of the project. The following items are typical:

1. Estimated demand for the product or service to be sold, and the method used for arriving at estimates of demand.
2. Estimates of income and expense, based on the prospective demand.
3. Survey of competition, actual or prospective.
4. Validity of patents.
5. Estimated investment required for real estate and plant, for working capital, for organization expenses, and for losses to be incurred until a profitable volume of business has been attained.
6. Availability of properties required, options, prices, and factors governing the selection of assets.
7. Labor required and its availability.
8. Management, including data on character and ability of principal officers.
9. A tentative financial plan, including classes and amounts of stock to be sold and offering prices.
10. The probable interest of investors in any issues to be offered, as indicated by other offerings that have been consummated.

ESTIMATING DEMAND.—The forecast of sales provides the principal basis for all other estimates. It is desirable that sales be projected on a monthly basis, to show probable receipts and outlays each

month until normal volume has been reached. Such an estimate should be conservatively prepared, to allow for errors or unforeseen contingencies.

Reference has already been made to the difficulty of estimating the demand for an entirely new product. A potential market, it should be observed, is not the same as a probable market. A new electrical household appliance has a potential market that embraces all wired homes. But the probable market is only the number of domestic electrical consumers who reasonably can be expected to purchase the product. For this reason, the population of **marketing areas,** without classification, seldom offers a sound guide in sales forecasting, for few products have such universal appeal as to sell equally well in all areas. Where the article is to be sold by retailers, it may be necessary to ship them goods on consignment to introduce the product, since they are often reluctant to incur the risk of purchasing a new item. Adequate advertising is nearly always necessary to launch a new product, and it is usually the best way of achieving a large sales volume within a short time.

In entering a more competitive field, the sales volume of competitors furnishes a guide to what the new enterprise is likely to do, but here too actual performance will depend largely upon the amounts spent on advertising. A great deal of weight attaches to the selection of an experienced and successful sales manager. This is especially necessary where outside capital is to be attracted. The very fact that a successful sales manager has been willing to join the organization is often an indication that the marketing of the product has great possibilities. Naturally, past sales records furnish the best indicator for the immediate future where a promotion is concerned with either the public sale of a former close corporation or a consolidation.

ESTIMATES OF INCOME AND EXPENSE.—Either a monthly or quarterly estimate of income and expense should be prepared for at least the first year's operations. For such a projection, it is usually sufficient to use close approximations, reducing the variable costs of labor and materials to dollars and cents per unit or, as is done in the accompanying example (Fig. 1), to the number of cents per dollar of sales. Fixed and semivariable overhead expenses can be combined and estimated for varying sales volumes.

If the results of the fourth quarter are considered typical of what can be achieved following the initial promotion period, the earning power before taxes of the enterprise is approximately $100,000 per annum. This indicated profit, with some allowance for contingencies, is then compared with the required investment, to see whether the launching of the enterprise is justified.

SURVEY OF COMPETITION.—Both existing and potential competition must be taken into account by a new promotion. A new successful product may expect imitators and must be prepared for patent infringement. Success in any field always attracts others. It was not long after the introduction of the domestic electric refrigerator and the demonstration of the demand for such a product that many competitors invaded the field. Woolworth's five- and ten-cent stores soon had imitators.

Estimated Income and Expense, Proposed Electric Novelty Corporation

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Estimated sales	$10,000	$30,000	$85,000	$100,000
Selling expense—20%	2,000	6,000	17,000	20,000
Income from sales	$ 8,000	$24,000	$68,000	$ 80,000
Labor—20¢ per $1.00 of sales	$ 2,000	$ 6,000	$17,000	$ 20,000
Materials—30¢ per $1.00 of sales	3,000	9,000	25,000	30,000
Overhead (including semi-variable expenses)	4,000	4,000	5,000	6,000
	$ 9,000	$19,000	$47,000	$ 56,000
Profit or Loss	$ 1,000	$ 5,000	$21,000	$ 24,000

FIG. 1. Estimate of Income and Expense for a Year's Operations

Unless a new product has distinctive features that make it possible to charge a higher price for it than do competitors, it is necessary to keep down costs so as to meet their prices. The price competition a new enterprise will encounter should not be underestimated, for competitors will usually exert every effort to keep a newcomer from capturing a share of the field. Well-established brands offer severe competition to new products, and a great deal of sales effort will usually be necessary to overcome a competitor's advantage in this respect.

VALIDITY OF PATENTS.—A patent is in the nature of a private monopoly to the use of a device or product, granted by the government to encourage invention. Obtaining the patent should be entrusted to a skilled patent attorney, for it should be as broad as possible to prevent successful imitators.

As has been pointed out, infringement of a successful patent is so frequent as to make it urgent that every care be used at the outset to facilitate prosecution in case of infringement. It has been said that a patent often gives little more than the right to sue for infringement.

THE ESTIMATED INVESTMENT.—The amount of investment required to launch a new concern includes four main items. These are:

1. Organization costs.
2. Cost of the fixed assets.
3. The amount needed for working capital.
4. Initial cash losses incurred until sales volume is large enough to absorb overhead costs.

ORGANIZATION COSTS.—Even though a promoter may receive compensation for his services in stock, it is customary for the enterprise to pay his out-of-pocket cash expenses. Travel and entertainment, hiring of assistants, incorporation expenses, lawyers' fees, and organization

taxes are examples of such expenses. The amount will depend upon the size and type of enterprise promoted, and what has to be done to get the business going.

COST OF FIXED ASSETS.—Real estate, plant, and equipment are the chief types of such assets. This investment will be quite high in a hydro-electric power plant, for example, and relatively low in a retail or wholesale establishment. The latter usually leases the premises required, and the investment in fixed assets is limited to furniture and fixtures.

Manufacturing enterprises can minimize fixed assets needed by contracting with others to make the products to be sold.

WORKING CAPITAL.—Basic working capital includes a sum of ready cash to meet current expenses for a period, inventories, and accounts receivable. The working capital is a rotating fund. Starting with cash, it is converted into inventories which are sold and turned into receivables; these in turn become cash when paid.

Failure to raise sufficient working capital at the promotion stage gives the business a bad start. Many instances of failure may be ascribed to this cause. Without adequate initial working capital, no new business really has a fair chance.

INITIAL LOSSES.—A simple illustration will show the importance of estimating in advance the length of time likely to elapse before operations reach a profitable basis, so that provision may be made to cover initial losses in the financing. Suppose a product is to be manufactured to sell for $2. If the labor cost per unit of product is $1, material cost 50¢ and monthly overhead $2,000, monthly sales of 4,000 units are necessary before a concern can operate without a loss, and at that volume no profit is earned. Every unit sold above 4,000, however, will contribute 50¢ to profit before taxes, until a point is reached which would bring an increase in overhead expense because more supervisory or general office employees are needed or a larger plant is required. Should 2 years elapse before monthly sales reach 4,000 units, losses for that period must be anticipated and the funds therefor provided, to avoid financial embarrassment for the budding enterprise.

AVAILABILITY OF PROPERTY REQUIRED.—If a plant or other place of business must be acquired, possession or an option to buy at a suitable location may be a prerequisite to interesting investors in a new enterprise. The site should be selected not only on a cost basis, but with due regard for such factors as proximity of raw materials and markets, prestige of the location, labor supply and relative labor costs, and the advantages, if any, in favor of leasing instead of buying. If more than one site presents itself, advantages and disadvantages of each must be weighed against the other.

A retail business may fail because it is located in the wrong section of town, or even because it is on the wrong side of a street. If bulky raw materials are involved, freight rates may mean the difference between profit or loss, or the ability of a new concern to meet competition. Costs involved should be ascertained in advance, so that rent, maintenance, taxes, and insurance may be fairly accurately estimated for the purpose of projecting earnings.

LABOR.—The type and quantity of labor required calls for careful investigation. In most enterprises today, labor has been unionized and standardized wage scales established. A new concern will have to meet prevailing rates and working conditions, and enter into contracts with trade unions embodying these terms. Knowledge of the type of contract entered into by competitors is a necessary safeguard against signing a contract whose terms would place the new enterprise at a disadvantage as compared with its rivals.

Availability of a suitable labor force within easy traveling distance from the plant is important if an initial force is to be secured and turnover of employees kept down. If it is necessary to establish the plant in a remote area, housing will have to be provided, and shopping facilities and amusements secured. Even if it is expected that these facilities will be self-sustaining, sums required to established such a community sometimes add considerably to initial capital requirements.

PROMOTION REPORT PITFALLS.—Promotion reports frequently prove unreliable, estimates of sales and earnings proving excessive, while expense and capital projections are inadequate. Chief pitfalls to be avoided, in formulating a reliable report, are:

1. Failure to allow for adverse changes in the general business situation.
2. **Shifts in consumer preferences,** especially for luxuries and other non-essentials. A business that caters to a fad is particularly unstable.
3. Efforts to imitate the success of a single established competitor, who may possess advantages or connections that the new concern cannot command.
4. Failure to allow for **bottlenecks,** such as plants, materials, or skilled labor, that cannot be secured promptly. Delays in getting started may be costly.
5. Entry of other new competitors into the field, resulting in overproduction, cut-throat competition, and consequent failure to realize estimates in the promotion report.

The best safeguard against these pitfalls is to have the chief items of the report carefully checked by objective, competent persons, such as industrial engineers.

MANAGEMENT.—Individuals who have been successful in the same or similar fields impress investors most as likely to make a new promotion a success. Sometimes, such a person is hired as president and the business is named after him (Chrysler Corp., for example). If outstanding men can be induced to serve on the board of directors, it will help considerably in the financing. The advice of such experienced individuals is of great help also in solving problems incident to the launching of a business.

Financial Plan for a Promotion

THE BASIC PROBLEMS.—The formulation of a financial plan for a new business involves two basic problems:

1. Determination of the amount of securities to be issued.
2. Deciding upon the kind of corporate securities to be issued.

THE AMOUNT OF SECURITIES TO BE ISSUED.—Computation of the amount of securities to be issued is known as capitalizing the business. It is the process of determining the value of the enterprise in terms of the stocks and bonds to be outstanding.

It is axiomatic to say that a business is worth a sum upon which the earnings represent a fair return. This amount may or may not coincide with the cost of the assets. In a new business there are no past earnings to form a basis for judgment, but capitalization will be based upon probable earnings. For example, if probable earnings are $12,000 a year and 12% is considered an adequate return under the circumstances, the capitalization will be $12,000 divided by .12, or $100,000.

ESTIMATING EARNINGS OF A NEW BUSINESS.—To justify the investment of capital, an earnings estimate should be based upon careful study and investigation, for otherwise those supplying capital would be merely gambling. If there are other concerns in the same line of business, their income statements and balance sheets can be analyzed to provide a guide for making estimates for the new corporation. If the securities of the older concern are listed on a stock exchange, such financial statements are easily obtainable. Large credit agencies have data which can be purchased. In using data of established businesses, allowance will have to be made for their goodwill, size and established position in the industry.

If a new corporation is to engage in an entirely new type of business, then the process of estimating will be one of "dead reckoning." Sales at planned selling prices must be projected largely in a vacuum. Sometimes this can be done by having a few samples prepared under contract and testing out the market in typical areas. Direct costs, i.e., the cost of material and labor, can usually be estimated fairly accurately. The same holds true of initial overhead. Upon the basis of these estimates, earnings of a typical year can be estimated. Allowances must be made for depreciation and taxes. Throughout, there must be full realization that, since the result is but an estimate, any tendency toward overoptimism must be held in check. An effort must be made to estimate the effects of competition and the probable reaction of earnings to cyclical changes in business.

Where it is planned to market stock to outsiders, either with the aid of investment bankers or through private offerings, it may be expected that earnings estimates and the methods used in arriving at them will be scrutinized carefully. Investors are usually prudent in risking their funds. Investment bankers have reputations as responsible security dealers to protect. Liabilities under federal securities laws, where registration with the Securities and Exchange Commission is required as a prerequisite to a public offering, necessitate careful substantiation of all statements made in registration statements, and care to make sure that all material facts are included.

DETERMINING THE CAPITALIZATION.—The rate at which the earnings of a business should be capitalized is that which will adequately compensate the investor for the risks undertaken. Risk depends on many factors. The more unpredictable the earnings, the greater the risk.

A water service company, for example, which will supply an established community faces little risk. Water being a necessity and the demand for it being capable of fairly accurate measurement, sales can be projected readily. Operating expenses can be estimated accurately also, and the business is free from competition that can upset these calculations. Investors will be willing to buy such securities, therefore, with the promise of a relatively low rate of return. An investment of this type will not usually appeal to speculators, but only to those who seek safety of principal at the sacrifice of large yield.

A new manufacturing business, on the other hand, involves a much higher degree of risk. Capable management will be required for success. Even though the article manufactured is classified as a necessity, competition is likely. Although the item to be manufactured may be protected by a patent, substitutes will probably be offered to the market by competitors if the demand is considerable. Some new enterprises involve so great a risk that even a promise of 20% or more earnings on the investment may not attract capital in ordinary times.

Public appraisal of risks is not static. In periods of prosperity, many persons who normally are cautious become speculatively inclined. At such times risks are lightly taken, and it may be possible to capitalize even highly venturesome enterprises at comparatively low rates. In years like 1929 and 1946, prices of speculative shares reached 20 or more times earnings, indicating that buyers were satisfied with earnings of 5% or less on their investment. They hoped, of course, that future increases in earnings would justify higher prices for stocks, and so give them capital appreciation on such speculative shares. Obviously, a new business can be capitalized in a boom period at a low rate, and the stock would be so much larger. But in a depression, public appraisal of risk goes to the opposite extreme, and stocks of many corporations sell at a very low multiple of average earning power. At such a time, it is almost impossible to finance a new business, for there is no demand for the stock. Fortunately, both these extremes are abnormal.

In addition to the risk factor, interest rates present another variable. When interest rates are high, capitalization rates will be higher, and vice versa.

CAPITALIZING THE SMALL CLOSE CORPORATION.—Small corporations are often capitalized at the amount of the initial capital contributed by the owners. Where an existing single proprietorship or partnership is incorporated and no change of ownership is contemplated, it may be capitalized at the amount of net worth shown in the proprietorship account. However, if such a business possesses considerable goodwill or has acquired important patents, trade-marks or copyrights, these intangible assets may be assigned an arbitrary value on the books of the corporation and a larger amount of stock issued to capitalize them.

In a close corporation the number of shares issued is of little consequence. There must merely be enough to divide the ownership in suitable proportions among the few stockholders concerned.

If no-par value stock is used, the capital stock can be given a balance sheet value equal to the amount of the assets less the sums due creditors. If par value stock is issued, any excess of assets over liabilities

and capital stock can be carried as surplus. When such close corporations invite public participation, recapitalization is usually necessary, and careful attention must then be given to anticipated earnings and the rate at which they shall be capitalized in setting the amount of securities to be issued.

CHOICE OF SECURITIES.—A new corporation other than a public utility will usually find its choice of securities limited to preferred and common stocks. The speculative character of a new business does not assure the stability of income necessary to make bonds attractive to investors, even if it is considered desirable to burden a new enterprise with interest charges. Only when an industrial concern has been in existence a number of years and has demonstrated earning power through poor as well as good years is the sale of bonds justified.

For the usual new industrial enterprise, common stock represents the safest choice of security to raise funds. By limiting capitalization to common stock, the speculative character of a new and untried venture is recognized. Buyers of common stock obtain voting power in the corporation, but it is only reasonable that those who join in the risks of a new enterprise should share in control over the utilization of their funds.

Nevertheless, it is the control factor that leads to the use of nonvoting preferred stock by many new corporations. While preferred dividends are contingent rather than fixed charges, failure to pay dividends on the preferred would affect adversely the financial standing of the new concern, and efforts to pay preferred dividends may handicap the enterprise. Accumulations of unpaid dividends on cumulative preferred issues are particularly undesirable, for they prevent dividend payments on common stock as earnings improve and hamper new financing seriously.

New industrial corporations formed to take over old and established concerns, or as consolidations of existing concerns, may find it expedient to issue preferred stock and even bonds. The situation is entirely different from that of a strictly new enterprise. There is a record of earnings, the products or services of the old businesses are well known and experienced personnel is available to manage the combination.

LIMITATIONS UPON THE CHOICE OF SECURITIES.—A concern may not always be able to put into effect what appears to be an ideal financial plan. The choice of securities may be limited by one or more of the following factors:

Investors' Preferences.—Such preferences make it expedient to use certain types of securities because others would meet sales resistance. Investment bankers, as merchandisers of securities, must offer those that are likely to meet a good reception, so that they may be sold quickly and easily. Sometimes a particularly successful issue of a certain type of stock or bond will cause bankers to insist that securities offered by other corporations conform to the same pattern, to facilitate their sale.

The Nature of the Business.—Retail corporations whose assets consist principally of stock in trade resort to bond financing to a limited extent because of the lack of fixed assets to offer as security. Air transport lines can offer a lien on equipment, but this is of limited value

unless the company has valuable operating franchises to assure that its planes can be utilized profitably.

The Phase of the Business Cycle.—In business depressions, the poor earnings outlook and the general timidity of investors result in such depressed prices for stocks that bond financing may be the only possible way in which funds can be raised. In periods of prosperity, on the other hand, it is often difficult to sell low yield bonds or preferred stock unless a conversion or option feature is added.

Legal Investment Regulations.—Laws limiting investments of banks, trustees, and life insurance companies will affect the financial plan of a larger promotion.

Government Regulation.—Corporations subject to regulation by federal or state agencies must issue securities acceptable to them. The Securities and Exchange Commission in particular has insisted that public utility companies subject to its jurisdiction maintain a safe balance between bonds, preferred and common stocks, and that stock issues carry voting power.

Control.—In large as well as small corporations, the desire on the part of management to retain control often leads to a choice of nonvoting preferred stock or bonds when common stock financing might be sounder procedure.

FLEXIBILITY OF THE FINANCIAL PLAN.—A capital structure which appears excellent today may require readjustment in the future, due to changes within the company or outside. For example, lower interest rates in recent years caused corporations whose bonds and preferred stocks were callable to replace them with lower rate issues. It may be desirable to retire bonds and preferred stocks either out of funds obtained from the sale of common stock at higher prices in periods of prosperity, or out of accumulated earnings. Foresight in making bond and preferred stock issues callable when they are first issued is one way of incorporating flexibility in a financial plan. Making bonds or preferred stock convertible into common tends to effect the automatic retirement of such issues when earnings increase and the common stock becomes desirable. Attaching common stock option warrants to bonds or preferred stock similarly provides for a larger proportion of stock in a corporation's capital structure.

SALE OF SECURITIES IN UNITS.—A feature of some financial plans of new promotions is the sale of two or more classes of securities in units. In this way, buyers who get in "on the ground floor" are in position, should the enterprise prove successful, to sell out the senior securities to recoup their original investment, while retaining the junior securities as their profit.

A unit may consist of a bond with common stock, or a share of preferred with common. Sometimes, a stock purchase warrant is added also to give a further speculative appeal. In one case of a new air line promotion, units consisted of 1 share of $10 par 5% preferred stock and 1 share of $1 common, sold together for $12.50. The preferred was callable at $12.50 and convertible into 4 shares of common. Buyers of the units hoped that the preferred would be called in time to give them

their original investment back, or would be converted to yield even a larger sum. The common stock received with the units would then be retained as the profit.

Where the financial plan calls for the sale of securities in units, it may be provided that the units can be separated immediately, or it may be required that the securities be sold together for a period. By keeping the units intact, it is sought to avoid placing separate prices on the preferred and the common and precipitating liquidation of one or the other issue that will depress quotations. Sometimes, units are sold privately to raise initial capital, but they are separated when public financing follows and preferred or common shares, or both, are offered publicly.

SECTION 9

FORMS OF BUSINESS ORGANIZATION

CONTENTS

PAGE

Selecting the Proper Form

Factors in choice of form 369
Financing 369
Taxation 369
Liability 370
Continuity 370
Ease of formation 370
Management 370
Changing the form of organization.. 370

Individual Proprietorships, Partnerships

Individual proprietorships 371
General partnerships 371
Management by general partnerships 372
Sharing of profits and losses in general partnerships 372
Liability of general partners 372
The partnership agreement 372
Advantages and disadvantages of partnership form 373
Limited partnerships 373
Statutory requirements for formation of limited partnerships 374
Operation of limited partnerships.. 374
Advantages of limited partnerships 374

Syndicates, Business Trusts, Joint Stock Companies

Syndicates 374
Business trusts 375
Method of formation of a business trust 375
Liability of trustees and shareholders 375
Life of a business trust 376
Tax status of business trust 376
Advantages and disadvantages of business trust 376
Joint stock companies 376
Method of formation 377
Tax status 377
Advantages and disadvantages 377

Mutuals and Cooperatives

Mutuals 377
Cooperatives 377
Forms of cooperative organization 378
Advantages and disadvantages 378

PAGE

Corporations

Corporate organization 379
Advantages and disadvantages 379
The incorporation process 380
Domestic, foreign, and alien corporations 380
Restrictions upon foreign corporations 380
Choice of state of incorporation 381
Delaware corporations 382
Corporate name 383
Nature of corporate charter 383
Contents of certificate of incorporation 383
Amendments to charter 385
By-laws 385
Power to make by-laws 386
Typical provisions 386
A typical set of by-laws 388
Stockholders' meetings 391
Annual meetings 391
Procedure at annual meetings 392
Special meetings of stockholders.. 393
Procedure at special meetings 394
Consent meetings 394

The Board of Directors

Legal position 394
Statutory provisions covering directors 395
Qualifications of directors 395
Number of directors 395
Election of directors 396
Compensation of directors 396
Resignation and removal of directors 396
Directors' liability 396
Statutory provisions affecting directors 397
Committees of the board 398
Executive and finance committees 398
Limitations on committee powers.. 399
Directors' meetings 399

Corporate Officers

Titles and functions of officers 400
Qualifications of officers 400
Powers and duties of officers 401
The treasurer 401
The controller 402
The secretary 402
Executive compensation 403

SECTION 9

FORMS OF BUSINESS ORGANIZATION

Selecting the Proper Form

FACTORS IN CHOICE OF FORM.—A business concern may assume one of the following forms of organization:

Individual or sole proprietorship.
General partnership.
Special or limited partnership.
Syndicate or joint venture.
Business or Massachusetts trust.
Mutual or cooperative.
Joint stock association.
Corporation.

There is no single rule to be followed in selecting the most suitable form of organization for a particular enterprise. Each form has advantages and disadvantages which must be weighed in their relation to the business concerned. A brief discussion of major factors to be considered in choosing the most advantageous form of organization will make this apparent.

Financing.—Whether a business is to be financed privately or publicly is always important. Public financing through the sale of participations in ownership requires a form of organization in which ownership may readily be divided into transferable shares. Freedom from personal liability for shareholders, apart from their initial investment, is also necessary to make the shares marketable. If capital is to be obtained through sale of long-term evidences of debt, the organization should promise a length of life in excess of the maturity of the debt. On the other hand, if the business is one which will be privately owned by one or just a few persons, an organization having share capital may be too cumbersome, or be subject to higher taxes than one of the simpler types such as the individual proprietorship or partnership discussed below

Taxation.—The heavier taxes to which some forms of business organization are currently subjected has caused great emphasis to be placed upon this factor in the choice of a form of organization for a new business, as well as in reconsideration of the form of organization of existing concerns. Basically, the problem is one of measuring the annual saving in taxation, usually a determinable amount, against such other factors as transferability of shares, freedom from personal liability and continuity of existence. It should be remembered that tax laws are amended from time to time, changing the relative burden on different forms of business.

Liability.—The extent of the personal liability of the proprietors of a concern to its creditors may be a vital consideration. Should a business venture fail and its assets prove insufficient to pay its creditors, the possibility arises of recourse to the personal assets of the owners. If a business entails great risk, a form of organization wherein creditors may look for payment to the business assets only will be favored.

Continuity.—To enjoy continuous existence, a business must not be terminated by the transfer of an owner's interest, whether by sale, gift, death, or operation of law. Usually this characteristic is to be found only in organizations providing for transferability of shares. Continuous existence is an outstanding legal characteristic of the corporation. Because shares in a business trust and a joint stock association are transferable, this characteristic is found in these organizations also. Where capital is to be borrowed on long term, this factor is essential.

Ease of Formation.—In small concerns with limited capital, or in a business whose duration is expected to be short, ease of organization may be an important factor. Incorporation, the drawing up of articles of association for a joint stock association, or the establishment of a business trust entails legal procedures which customarily require the services of an attorney. It is almost a corollary that the more complicated the organization, the more involved will be accounting, income tax procedures, and other matters of administration.

Management.—In business concerns having many co-owners it is not practical for all to exercise direct responsibility in the routine details of management, for bedlam would result. It is necessary, therefore, to choose a form of organization in which management is carried on by representatives of the owners. In a corporation, for example, the stockholders elect a board of directors who enjoy broad discretion in carrying out general policies expressed in the charter and the by-laws adopted at stockholders' meetings. The directors, in turn, rely upon the officers of the concern to conduct day-to-day operations. Direct management by the owners is usual in partnerships, in smaller corporations where the stockholders are also directors and officers, and, of course, in the individual proprietorship where there is but one owner. Such direct management may be important where risk is great, or where success depends upon the personal contacts or attributes of the owner.

CHANGING THE FORM OF ORGANIZATION.—A corporation initially organized in one form may adopt a different form of organization at a later date. Concerns beginning business as sole proprietorships or partnerships often become corporations when continued growth and expansion make public financing a necessity, or when a more permanent form of organization is sought. The great Baldwin Locomotive Works, for example, began business as a partnership, but later became a corporation. Tax laws in the war years bore heavily upon corporations, causing numerous closely held corporations to surrender their charters and become partnerships. By contrast, heavy estate taxes have caused such partnerships as J. P. Morgan & Co. to incorporate, so that the erstwhile partners could convert their interests in the business into marketable stock. Repeal of the excess profits tax caused some larger partnerships to incorporate, so that the owners could

escape the heavy personal income surtaxes to which they were individually subject.

Individual Proprietorships, Partnerships

INDIVIDUAL PROPRIETORSHIPS.—When a single individual engages in business as the sole owner, the enterprise is referred to as an individual or sole proprietorship. The business does not exist apart from the owner, and he is one with it. He alone can make ultimate decisions of management, regardless of the size of the business. The debts of the business are his debts, and his personal assets are equally subject with those of the business to attachment by creditors.

The proprietor enjoys all the constitutional privileges of a citizen of the United States, so that he may conduct business and have access to the courts in every state of the union. A proprietor's credit is his personal credit, which may limit long-term borrowing except where the loans can be well secured by liens on marketable assets. The life of the business is co-extensive with that of his own, for when he dies his heirs become the proprietors. No formality is associated with the proprietorship's creation, and the nature of its product or service can be changed at the whim of the owner. While the owner suffers all losses, he also receives all profits, a powerful incentive for the closest attention to management.

The most simple form of organization, the proprietorship, suffers from the defects of instability, lack of continuous management, and financing difficulties because there can be only one owner.

GENERAL PARTNERSHIPS.—A general partnership is an association of two or more individuals as co-owners of a business for profit. It is a contractual relationship. The **contract** may be oral or written. To meet the requirements of the Statute of Frauds in most states, a contract not capable of being performed within one year must be in writing, as otherwise its terms will not bind the participants.

A **partnership contract will be implied** to exist where it can be shown that two or more persons share the profits and, in addition, share the losses, or exercise a joint control, or have a common investment. While it is a common law form of organization, many of the states have adopted statutes governing the relationship of partners to one another and to those with whom the partnership may have dealings. A statute known as the Uniform Partnership Act has been adopted by 30 states and 2 territories.

A partnership is not a separate entity from those that compose it, although for convenience the laws of some states permit partnerships with many members to sue and be sued as firms. The New York Civil Practice Act permits all partnerships to sue or be sued in the firm name, and process may be served upon any one or more partners. Judgments secured against a partnership may be collected out of property of the firm or of each partner upon whom a summons has been served, in such cases. Real estate is held in the names of the partners, or in the name of an individual partner who then holds title in trust for all. The partnership may operate under a trade name not containing the names of

any or all the partners. Like the individual proprietorship, a partnership or firm may change, expand, or restrict the nature of its business activities at the discretion of the partners, and may enforce business contracts in any state without first having obtained a license to do business there.

Management by General Partnerships.—Each partner is a **general agent** for his partners, and a partnership may be held to contracts executed by one partner. This is true even if a contract is made in violation of the partnership agreement, unless it can be shown that the outside contractor had previous notice of a limitation of the authority of a partner. However, if a contract is outside the usual scope of the partnership's business, e.g., borrowing money on the part of a law firm, it will not be enforced against the partnership unless signed by all the partners —the unusual nature of the contract being deemed sufficient to put upon the outside contractor the burden of making inquiry as to the authority of a contracting partner to bind his firm.

Sharing of Profits and Losses in General Partnerships.—Unless otherwise specified in the partnership agreement, profits and losses of the partnership will be shared equally regardless of the amount of capital investment by each partner. Disputes among partners as to sharing profits, or any dispute requiring an accounting, are settled in a court of equity.

It should be pointed out that each partner is in effect a trustee of the firm's assets, including such intangibles as knowledge of opportunities for the firm to make profits. This trusteeship will be strictly enforced by the courts.

Liability of General Partners.—The liability of partners is joint and several. Judgments against the firm which are not satisfied from the firm's assets may be executed against the assets of individual partners. If one partner is required to pay more than his fair share, courts of equity will give him a right of contribution against his co-partners for the excess. In equitable proceedings for the final settlement of the accounts of insolvent partnerships, the courts follow a procedure known as the **Rule of Marshaling.** Briefly stated, this rule provides that firm creditors must first exhaust the business assets before they may satisfy their claims out of the personal assets of individual partners, while personal creditors of the partners have a claim against personal assets ahead of firm creditors.

The Partnership Agreement.—The features of a general partnership mentioned prove the need for a partnership agreement. A partnership ceases to exist when any member withdraws, dies, or is legally incapacitated, and immediate dissolution would result unless there are agreements to the contrary. Even while in existence, disputes may arise over matters which, had they been reduced to a written agreement, would not have caused trouble. Some of the details which should be included in a partnership agreement follow:

1. Names of partners and the firm name.
2. Kind of business to be conducted.
3. Capital contribution of each partner.
4. Duration of the partnership contract.

5. Amount of time to be devoted to the business by each and any limitation upon outside business interests.
6. Method of dividing profits and losses.
7. Restrictions upon the agency powers of the partners.
8. Salaries to be paid partners, or limitations upon the withdrawal of profits.
9. Method of admitting new partners.
10. Provision for insurance on lives of partners for benefit of firm.
11. Procedure to be followed in voluntary dissolution.
12. Procedure upon death or withdrawal of partner, including method of computing valuation of tangible assets and good will.

It can be seen that there are many opportunities for disputes in the conduct of partnership affairs. It is but prudent to prepare a written agreement in advance, to assure harmonious relations.

Advantages and Disadvantages of Partnership Form.—The partnership form of organization is superior to the proprietorship because it permits several persons to combine their resources and abilities to conduct a business. It is easier to form than a corporation, and retains a personal character making it more suitable in professional fields and others where limitation of liability of owners is considered inconsistent, as among members of security and commodity exchanges.

Among smaller and middle-sized businesses, the partnership enjoys considerable vogue. The unlimited liability of partners, the relative instability of the form and the great difficulty of attracting outside capital are important disadvantages to consider, however.

Even for businesses of limited size, tax considerations often determine the choice between the partnership and corporate forms. When the federal government taxes corporate income at relatively higher rates than individual income, as during World War II, it is often advantageous to use the partnership form of organization.

Partnerships as such pay no federal income tax, although they are required to file a return. The individual partners pay personal income taxes on their shares of the profits, and if there are many partners this reduces their highest tax brackets. Partnerships are free from state corporate income and franchise taxes, although New York state has a relatively small unincorporated business tax.

The relative tax burden on a corporate and partnership form of organization must be computed separately for each case, for the individual circumstances will govern the answer. Each change in tax rates, moreover, must be analyzed and the effect upon the two forms of organization recomputed, to determine the relative merits of each.

LIMITED PARTNERSHIPS.—A limited or special partnership, like the general partnership, is a contractual form of organization, but unlike the general partnership it is not a common law form of organization. Statutory authority is required to make the terms of the contract effective against creditors.

In the United States, this form of organization was first used in Louisiana, where the civil law, inherited from France, provided for it. New York adopted such a statute in 1822, and now all the states of the union except Arizona and Florida have limited partnership statutes. Nineteen states have adopted the Uniform Limited Partnership Act.

A limited partnership may be defined as an agreement between one or more general partners and one or more special or limited partners whose liability is limited to the amount of their capital investment in the firm.

Statutory Requirements for Formation of Limited Partnerships.—The statutes of the various states relative to the formation of limited partnerships differ slightly as to the procedure to be followed. Since the courts interpret such statutes strictly, they should be consulted to assure limited partnership status. The usual requirement is that a formal agreement be drawn for the signature of all partners. It should show clearly that it is to be a limited partnership, the amount of the contribution to capital on the part of each partner and a designation of each partner as "limited" or "general." The statutes require that the agreement be made a document of public record by filing with a designated public officer, usually the county clerk or recorder of the county where the principal office is to be located. There may also be a requirement that the agreement or a notice be published in newspapers.

Operation of Limited Partnerships.—A limited partnership operates like a general partnership, except that the limited partner or partners may exercise no voice in the management. If they would do so, creditors might be misled and assume they are general partners. Limited liability is enjoyed by special partners only where the firm is registered as a limited partnership. If business is carried on in another state, the limited partners are considered general partners there. Where business is to be conducted in two or more states, therefore, limited partnerships are formed under the statute of each state with the same firm members. It is unwise to use the name of a limited partner in the firm's name unless the statutes permit, because those dealing with the firm may infer that he is a general partner and be permitted by the courts to hold him liable accordingly.

Advantages of Limited Partnerships.—The feature of limited liability may attract capital contributions from persons who would otherwise hesitate to become partners. This form appeals also to persons unable or unwilling to participate in management. The limited partnership provides a method by which an elderly partner may withdraw from active participation in the business but retain an investment without risking his entire estate. A number of New York Stock Exchange firms are limited partnerships for these reasons.

Syndicates, Business Trusts, Joint Stock Companies

SYNDICATES.—A variation of the partnership form of organization is the syndicate or joint venture. It is usually of short duration, formed to carry out a single venture. The syndicate agreement usually vests the powers of management in one or two of the members and limits liability of each member to a specific participation. The limitation of liability, while binding among the participants, would not be valid as against a creditor without knowledge of it. Since participation in management is not required, the agreement may specify conditions under which a member can withdraw. The syndicate continues after the death of a member, unless his participation proves necessary to the success of the under-

taking. Although ancient in origin, syndicates are now principally used in connection with security offerings and real estate transactions. Investment bankers form syndicates or groups to divide the risk of purchasing issues of securities from the issuing corporation for resale through a larger selling group to the public.

BUSINESS TRUSTS.—This form of organization, also known as a **Massachusetts trust,** was first used in that commonwealth for the purpose of holding and dealing in real estate, a development which came about because the Massachusetts law (prior to 1912) prohibited the formation of a corporation for this purpose. It may also be called a **voluntary association, express trust,** or **common law trust.** The last title is more accurate because the business trust is an adaptation of the common law trust to business use. In a business trust, legal title to business property is vested in trustees who hold and manage it for beneficiaries **(cestuis que trustent),** who are nominally the contributors or successors to the contributors of the capital used to create the trust. Because of the close analogy to a corporation, and because each beneficiary receives a transferable certificate evidencing his participation, these beneficiaries are popularly called **shareholders,** and the unit of participation is referred to as a share or **trust share.**

Method of Formation of a Business Trust.—A deed of trust should cover the following essentials:

1. Names of trustees.
2. The duration of the trust expressed in terms of the lives of not more than two persons in being at the time the trust is created.
3. Provision for disposition of trust property upon the death of persons upon whose lives the duration of the trust depends.
4. Provision for appointment to vacancies among trustees.
5. Description of property to be transferred to trustees.
6. Directions as to management of trust property.
7. Directions as to sale or transfer of trust property.
8. Provisions for the sale of trust shares whereby others may become contributors to the trust capital.
9. Provisions for the transfer and registration of trust certificates.
10. Directions for the inclusion of a clause in all contracts stipulating that trustees and shareholders may not be held liable and that creditors may look to the trust property only for payment.
11. Any other provisions for the conduct of the trust, such as limitations on the powers of trustees, remuneration of trustees, distribution of trust income to the shareholders, and limitations upon salaries of employees.

Preparation of a deed of trust requires great care and skill. Close attention must be paid to the common law and statutes of the state in which it is formed.

Liability of Trustees and Shareholders.—As may be inferred from the preceding section, care should be exercised if the trustees and shareholders are to escape personal liability to creditors. Trustees are liable unless they expressly disclaim liability at the time of making contracts and make it clear that creditors may look to the trust fund only for payment.

The legal position of shareholders is less clear. The courts of the several states are not in agreement as to the legal status of a trust. In

Texas, for example, it is regarded as a partnership (Wells v. Mackay Telegraph-Cable Co., 239 S. W. 1001, at p. 1006 [1922]). The courts of Michigan and Kansas are inclined to treat it as a de facto corporation, with resultant freedom from partnership liability on the part of shareholders. In other states, it is settled that shareholders must not participate in management to any degree, even to the extent of periodical election of trustees, if beneficiaries of a true common law trust are not to be liable. To avoid danger of liability, the deed of trust should stipulate that the trustee must include in all contracts a clause similar to the following:

> The (name of organization) is a common law trust. Any contract made or liability incurred by the trustees thereof for the benefit of the trust binds only the trust property in their hands, and neither themselves nor the beneficiaries (shareholders) of the trust shall be held to any personal liability under or by reason thereof.

Life of a Business Trust.—The common law and the statutes of most states, with few exceptions, forbid the creation of perpetual trusts or trusts for a term of years, unless the term is limited in the main to the life or lives of specified persons. Exceptions to this rule are commonly provided for pension trusts, insurance trusts, and voting trusts. The trust thus provides greater possibilities for continuity than any of the forms of business organization previously discussed. Its life is not affected by the death of shareholders or trustees, ownership is usually transferable, and there are legal means of affecting the transfer of the trust property to a successor trust upon the termination of its life, a procedure which, as a practical matter, provides for uninterrupted continuance of the business.

Tax Status of Business Trust.—There is a growing tendency to treat business trusts for tax purposes as though they were corporations. They are subject to the federal corporate income tax. New York includes trusts in its definition of organizations subject to the annual franchise tax.

Advantages and Disadvantages of Business Trust.—
Advantages.

1. Stability during the life of the trust, since duration is not affected by death of or transfer of the interest of a member.
2. Transferability of ownership and freedom from personal liability facilitates aggregation of capital.
3. No limitations upon the type of business in which it may engage.
4. Concentration of management powers in a small board of trustees.
5. Freedom from statutory regulation.

Disadvantages.

1. Tendency to tax like corporations.
2. Uncertainties concerning legal questions, due to limited number of judicial decisions.
3. Limitation upon the length of life.
4. Possibility of shareholders incurring personal liability.

JOINT STOCK COMPANIES.—This form of organization resembles a partnership, but ownership is divided into transferable shares and management is vested in a board of directors or managers. It is used

in few cases because it possesses few advantages over the corporation, and does have a major disadvantage in the unlimited liability of shareholders. The joint stock company is not considered a legal entity and property, unless specifically permitted by a state statute, cannot be held in the firm name but in the names of the shareholders. Since that is impracticable, it is customary for the property to be held by the directors as trustees for the benefit of the company.

Method of Formation.—Preparation of the **Articles of Association** is all that is necessary for the organization of a joint stock company. A charter is not needed, although some states like New York require the filing of the agreement at a designated public office or offices. The agreement will ordinarily include the following points:

1. Name of the business.
2. Enumeration of purposes and restrictions upon the type of business.
3. Location of principal office.
4. Amount of capital and type of shares to be issued.
5. Provisions for a board of directors including term of office, elections, and restrictions upon directors' powers.
6. Provisions for stockholders' meetings and procedures for amendment of articles of association.
7. Duration and dissolution procedures.
8. Statement that shareholders waive powers of management and general agency.
9. Method of distribution of profits.
10. Provisions for free transfer of shares.

Tax Status.—Unless specified by statute, a joint stock company is not subject to state corporation taxes. New York, however, treats it like a corporation for franchise tax purposes, as does the federal government for income tax purposes.

Advantages and Disadvantages.—The tendency of states to pass regulatory statutes and to tax the joint stock company like a corporation, the fact that the federal government subjects it to the corporate income tax, and the unlimited liability attaching to ownership of its shares limit use of this form of organization. The principal example of its use in the United States was the great express companies, which were organized as joint stock companies before the corporate era.

Mutuals and Cooperatives

MUTUALS.—Principal examples of mutual corporations in the conduct of business are found among insurance companies and savings banks. These are nonstock corporations, conducted by trustees for the benefit of policyholders or depositors. The state laws under which mutual insurance companies are organized usually provide that directors will be elected periodically by ballots mailed in or delivered to the principal office by the policyholders. Trustees of mutual savings banks fill vacancies on the board by election. The same practices apply in the conduct of savings and loan associations and other mutual or cooperative business organizations.

COOPERATIVES.—In addition to consumer cooperatives designed to eliminate middlemen and secure the benefits of quantity purchases for

individual consumers, there are producer cooperatives which have become an important factor in the marketing and occasionally in the processing of agricultural products. Cooperatives have been formed also to provide electric and telephone service, especially in rural areas. A number of these have attained substantial size.

Forms of Cooperative Organization.—Cooperatives may assume two different forms of organization. One type is a simple unincorporated association similar to a partnership, except that members may be admitted and withdraw without dissolving the organization. Management is vested in a board of directors or in elected officers. The second type is incorporated either as a stock corporation or a nonstock, nonprofit corporation.

Most states have enacted statutes regulating cooperatives. Many of these laws are based upon a model bill for the organization of agricultural cooperatives which was drawn up by the U. S. Department of Agriculture in 1917. The federal government has promoted formation of agricultural cooperatives and has set up agencies to assist them with financing and in other ways. The Clayton Act of 1914 and the Capper Volstead Act of 1922 exempt such organizations from the provisions of the anti-trust statutes. The board of directors is elected by the members, a limitation of one vote for each member being imposed by most of the statutes.

In cooperatives which issue stock, dividends are usually limited by law to from 4% to 8% per year, the statutes of the states varying in this respect. In addition to dividends on stock, dividends are given on patronage. Patronage dividends may be given to nonmembers who do business through the cooperative, but at a lower rate than that enjoyed by the members.

Cooperatives are financed by the sale of stock to members or by membership dues. They are eligible for loans from the Federal Intermediate Credit Banks, and it is not unusual for them to borrow from local banks.

Advantages and Disadvantages.—Mutuals and cooperatives differ from other forms of business enterprise in that they are not conducted for profit. In mutual insurance companies, excess income over expenses, losses, and reserves are returned as "dividends" to policyholders. In mutual savings banks, the surplus accumulated after the payment of interest-dividends to depositors belongs to the body of depositors. In consumer cooperatives, customers ordinarily receive rebates or "dividends" out of earnings, while in producer cooperatives the participants share the earnings. Members of cooperatives consider the fact that the earnings belong to them the key advantage.

It is contended by business men that cooperatives are being artificially fostered by **high taxation** upon other forms of business. Since cooperatives return earnings to customers or other participants, they do not have income in the usual sense, and hence are not subject to the income taxes applicable to other business, whatever its form of organization. Mutuals are subject to special low rates of taxation under the revenue laws.

Disadvantages of cooperatives are the lack of the profit incentive, limited ability to raise capital as compared with corporations, and the difficulty of attracting top-notch executives to conduct cooperative enterprises that do not pay competitive salaries. Mutual financial institutions

for the most part do pay salaries equal to those paid by comparable stock enterprises, so that this difficulty has been overcome by them.

Corporations

CORPORATE ORGANIZATION.—While some 80% of the business concerns of the United States are unincorporated, the remaining 20% which are corporations account for more than 80% of all capital employed in business, showing that this is the favored form of organization for larger enterprises.

A corporation is a statutory form of organization. It owes its existence to the legislature of the state in which it is organized. Each state has enabling legislation which prescribes the manner in which a corporation may be formed, and strict adherence to these statutes is necessary not only as a prerequisite to its creation but as a continuing obligation during the whole period of its existence.

A corporation is endowed by law with certain characteristics. It is a legal entity, distinct and separate from those who compose it, and as such it may exercise the powers conferred upon it by its charter in the same manner as an individual. It has continuity within the period of life specified in its charter, which in most jurisdictions may be perpetual. The members of the corporation, its shareholders, are not liable for its debts, and participate only indirectly in its management through elected representatives called directors. A corporation is not a citizen under the provision of the constitution which reads that "the citizens of each state shall be entitled to all privileges and immunities of citizens in the several states," and therefore may enjoy corporate privileges in a state other than that of its legal domicile only with the foreign state's permission.

Advantages and Disadvantages.—Very widespread use of the corporation as a form of business organization by all but comparatively small enterprises results from a number of major **advantages** that it possesses. These are:

1. Stockholders are not liable for the debts of the corporation, except to the amount of unpaid subscriptions on the stock.
2. The division of capital into shares makes it possible to attract both small and large investors.
3. Shares may be classified to vary the degree of risk assumed and to meet the desires of different classes of investors.
4. By the use of voting and nonvoting shares, control may be retained with a relatively small investment.
5. The transferable feature of the shares is an important factor in raising large amounts of capital.
6. A corporation has continuous succession, usually in perpetuity, facilitating borrowing.
7. Its status as a legal entity makes it possible to hold property and maintain legal actions in its own name.
8. Concentration of discretionary powers of management in a board of directors makes for efficiency.

As in the case of each of the unincorporated forms of organization previously discussed, a corporation is subject to disadvantages which should be weighed before the decision to incorporate a business is made. These **disadvantages** are:

1. The organization tax and lawyers' fees make it relatively expensive for smaller concerns.
2. A certificate of authority may be required, and usually a fee must be paid to transact business outside the state of incorporation.
3. It is subject to income taxes that may increase the tax burden for smaller enterprises.
4. The business is limited to activities mentioned or implied in the charter, or those incidental thereto.
5. The owners tend to be separated from management.
6. Burdensome reports are required by federal and state governments.

The Incorporation Process.—Incorporation procedures vary among the several states, and study of the law is necessary in each case. State incorporation laws outline standard procedures, in most states designating the Secretary of State to administer the law and keep records of corporations. The following procedure is typical:

1. Three or more persons indicate a desire to incorporate by filing with the proper state officer a **certificate of incorporation** in the form prescribed by statute.
2. Filing fees and organization taxes must accompany the certificate.
3. If the Secretary of State finds that the certificate is correct in form, that the business is not against public policy, and that the fees are correct, the certificate becomes the **corporate charter** and is filed in the office of the Secretary.
4. In some states incorporators must formally accept the charter. In others (New York) acceptance of certificate by the Secretary of State qualifies for doing business.
5. A copy of the certificate is filed in the office of the county in which the principal office of the corporation is to be located. In some states, the corporation must be registered with the tax authorities.
6. Directors are elected by the stockholders, and the corporation may proceed with its business.

DOMESTIC, FOREIGN, AND ALIEN CORPORATIONS.—A corporation within the state in which it is incorporated is referred to as a domestic corporation. In states other than that in which it is incorporated it is termed a **foreign corporation.** If incorporated outside of the United States, District of Columbia, or the territories of the United States, it is an **alien corporation.** State laws make no distinction between foreign and alien corporations and where the word foreign is used in a state statute, the reference includes alien corporations.

Restrictions upon Foreign Corporations.—All states require that a foreign corporation obtain a **certificate of authority** (license to do business) as a prerequisite to doing business within the state. To obtain a certificate of authority, it is usually necessary to file a certified copy of the certificate of incorporation, designate an office within the state, and state the name of an officer or agent upon whom legal process may be served. (In New York the Secretary of State must be designated as a person upon whom valid service of legal process can be made.) Registration with the tax authorities may be required also.

In some states, like New York, no penalty attaches to the failure of a foreign corporation to obtain a certificate of authority before doing business, other than denial of the right to sue in the courts for contracts made in the state. In other states fines are imposed upon the corporation

and its agents for failure to obtain such a certificate. The question as to what **constitutes doing business** in a foreign state is one which the courts and statutes of the 48 states have not treated uniformly. If the transaction is **interstate,** as distinguished from **intrastate,** no license is necessary, for interstate transactions enjoy the protection of the federal constitution. Difficulty often arises in determining just when a transaction ceases to be interstate and becomes intrastate in character. If a salesman enters a foreign state and sells goods which are to be shipped into the state and if the orders are to be taken subject to acceptance by the home office, the transactions are interstate. Suppose, however, goods are stored in a warehouse in the foreign state, or the salesman has the authority to confirm the contract at the time the sale is made, the courts of most states would hold such transactions to be intrastate and the foreign corporations should first obtain a certificate of authority. Other situations held to be intrastate arise where the article sold requires installation by an agent of the company, or where an office is maintained within the foreign state. Goods may be purchased outside the state for immediate shipment to the home state without constituting doing business of an intrastate character, but if the goods are not shipped immediately but are stored in the state where purchased for an interval before being shipped to the corporation's home state, it is probable that a certificate of authority will be necessary.

In view of the above difficulties, it may seem that no corporation should effect transactions outside its own state without qualifying to do business in other states in which it desires to trade. However, when a corporation is licensed to do business in a foreign state, it makes itself liable to be taxed by that state and usually must file reports and maintain an office there. If this is repeated in many jurisdictions, considerable expense and trouble are evidently involved.

CHOICE OF STATE OF INCORPORATION.—If a corporation is small and expects to own property and operate principally in one state, the advantages of incorporating in that state will normally outweigh possible benefits of incorporating in another state, such as wider powers or lower taxes, and then qualifying in the state of its principal business. Where, however, the enterprise is large, business is to be done in a number of states, or ownership of real property is not involved, it would do well to compare the corporation and tax laws of a number of states before choosing a legal domicile.

Organization taxes and fees and annual taxes are important considerations in the choice of the state of incorporation. Other factors related to corporation laws which should be weighed by the incorporators are:

1. Types of stock permitted.
2. May stock be issued for other than cash?
3. Must all the consideration received for the stock be credited to capital, or can part be carried to surplus?
4. Liabilities of stockholders, directors, and officers.
5. Restrictions upon capitalization or debt.
6. Can stockholders' and directors' meetings be held outside of the state?
7. Restrictions upon kinds of business in which the corporation may engage.
8. Has the law been thoroughly tested and interpreted in the courts?

9. Restrictions upon dividend payments from capital surplus.
10. Procedure for increasing or decreasing capital stock.
11. Ease of entering into mergers and consolidations.

Delaware Corporations.—The organization tax assessed by the state of Delaware is relatively low, and is on a sliding scale favorable to corporations with large capitalizations. Starting from a minimum of $10, the Delaware organization tax at this writing is as follows:

Capital Stock	Fee
Shares of stock with par value:	
Up to and including $2,000,000	1¢ per $100
Over $2,000,000 up to and including $20,000,000	$200 plus ½¢ for each $100 over $2,000,000
Over $20,000,000	$1,100 plus ⅒¢ for each $100 over $20,000,000
Shares of stock without par value:	
Up to and including 20,000 shares	½¢ per share
Over 20,000 shares up to and including 2,000,000 shares	$100 plus ¼¢ for each share over 20,000
Over 2,000,000 shares	$5,050 plus ⅒¢ for each share over 2,000,000

Savings that can be achieved in organization taxes through incorporation in Delaware for a large corporation may be judged by comparison with other states. A $10,000,000 par value capitalization would require an organization tax of $600 in Delaware, $5,000 in New York, and $2,000 in New Jersey, at this writing. In Arizona there is no organization tax, merely incorporation fees totaling about $85. Nevada has a sliding scale of rates that is lower for large corporations than that of Delaware.

Annual taxes upon corporations in Delaware are low also, and are based on authorized capital with special provisions for an alternative method of computation for corporations having shares with par value below $100. The computation giving the lower tax may be used (Revised Tax Code of Delaware, Chap. 6 sec. 64, as amended in 1937). In our previous examples of a $10,000,000, $100 par value capitalization, the annual corporation tax in Delaware would be $50 and in New Jersey $4,250. New York's annual or franchise tax is in the nature of an income tax with alternative methods of computation, the corporation to select the method giving the state the largest amount of tax. In some states, a tax must be paid on only the amount of capital employed in the state. The District of Columbia and South Dakota have no annual taxes.

Although some western and at least one eastern state (Maryland) have annual taxes lower than Delaware, the latter remains the most popular corporate home. Relatively favorable taxes are a factor, but other considerations are often responsible. There has been ample opportunity to test the Delaware laws in the courts, since so many large corporations are incorporated there. The state's legislature, eager to retain the income provided by corporations choosing Delaware as their home, has been quick to enact amendments that are widely desired, and has kept the statute up-to-date as new trends in corporate finance appear.

Furthermore, incorporators do not have to be residents of Delaware; meetings of stockholders may be held outside the state; dividends may be paid under certain circumstances even if they result in a reduction of capital; very wide powers may be authorized in the charter, and almost any type of classification of stock is permissible.

Many holding and investment corporations have been organized in Delaware because of the attraction of low taxes and liberal laws. At one time, people in other states looked askance at corporations formed in Delaware. This is no longer true. Today, many large, well known corporations such as the Ford Motor Company, the General Motors Corporation, the Coca-Cola Company, and a host of others are Delaware corporations.

The principal disadvantage of Delaware incorporation results from the fact that most of these corporations conduct but a small part of their business in the state. Therefore, they must conform to the licensing laws of other states in which they do business as a foreign corporation.

CORPORATE NAME.—A corporation may choose the name under which it wishes to conduct its business. This name becomes the exclusive property of the corporation, conferred upon the corporation by its charter.

The choice of a name is subject to restrictions, which vary from state to state. The restrictions are of three types:

1. The corporation may not use the name of another corporation chartered by the state, or one so similar as to cause confusion.
2. Statutes usually require that the name contain a word or abbreviation indicating that the organization is a corporation.
3. Statutes prohibit the inclusion of words indicative of a banking or insurance business in the name, unless the business is organized for such purposes under pertinent laws.

The above restrictions are found in the statutes or court decisions in most states. In addition, some state laws impose other restrictions. For example, New York specifically prohibits the use of the word "Cooperative" except by a cooperative association, the word "Doctor" or "Dr.," and the word "lawyer" except by a nonprofit membership corporation of lawyers. Delaware provides that the name must contain one of the following words—"association," "company," "corporation," "club," "incorporated," "society," "union," "syndicate," or "limited"; or one of the abbreviations—"Co.," "Inc," or "Ltd." In New York, by a court decision (77 N. Y. 643, 138 N. Y. Supp. 455), the word "company" is considered insufficient to distinguish an organization as a corporation, because it is also frequently used by copartnerships.

In view of the danger of selecting a name which will afterward be found unavailable, it is wise to check the desired name against lists on file in the state incorporation office before filing the papers. This may be done by letter or telegram to the Secretary of State, who will cause the proposed name to be checked against his records.

A name, once adopted, can be changed only by amending the certificate of incorporation in the manner, and with the consent of stockholders, prescribed by the statutes of the state of incorporation.

NATURE OF CORPORATE CHARTER.—The certificate of incorporation is often referred to as the charter of the corporation. It would be more correct to define the corporate charter as the certificate of incorporation read in connection with the corporation laws of the state in which the enterprise is incorporated.

Contents of Certificate of Incorporation.—The provisions of the stock corporation law of New York quoted below are fairly typical of other states.

Section 5. Incorporation.—Three or more persons may become a stock corporation for any lawful business purpose or purposes except to do in this state any business for which a corporation may be formed under or pursuant to the banking law, the insurance law, the railroad law, or the transportation corporations law, by making, subscribing, acknowledging and filing a certificate which shall be entitled and endorsed "Certificate of incorporation of ....., pursuant to article two of the corporation law" (the blank space being filled in with the name of the corporation) and which shall state:

1. The name of the proposed corporation.
2. The purpose or purposes for which it is to be formed.
3. Either the amount of capital stock and the number and par value of the shares of which it is to consist, or, if the corporation is to issue shares without par value, the statements required by section twelve.*
4. If the shares are to be classified, the number of shares to be included in each class and all of the designations, preferences, privileges and voting powers of the shares of each class, and the restrictions or qualifications thereof.

   If any class of stock which is preferred as to dividends or assets is to be issued in series as provided by section eleven, either (a) the designations, preferences, privileges and voting powers of the shares of the first series of such class, and the restrictions or qualifications thereof, and that the board of directors is authorized to fix from time to time before issuance the designations, preferences, privileges and voting powers of the shares of each subsequent series of such class, and the restrictions or qualifications thereof, or (b) that the board of directors is authorized to fix from time to time before issuance the designations, preferences, privileges and voting powers of the shares of each series of such class, and the restrictions or qualifications thereof.
5. The city, village or town and the county, within the state, in which the office of the corporation is to be located, and the address, within or without the state, to which the secretary of state shall mail a copy of process in any action or proceeding against the corporation which may be served upon him.
6. Its duration.
7. The number of its directors, or that the number of directors shall not be less than a stated minimum nor more than a stated maximum. In either case the number of directors shall be not less than three.

* Section 12.—Any or all of the shares of any stock corporation, other than a moneyed corporation, may be issued without par value, provided there be included in its certificate of incorporation the following statements:

1. The total number of shares that may be issued by the corporation.
2. The number of shares, if any, which are to have par value and the par value of each.
3. The number of shares which are to be without par value, and
4. Either of the following statements:

   A. "The capital of the corporation shall be at least equal to the sum of the aggregate par value of all issued shares having par value, plus ..... dollars (the blank space being filled in with some number representing one dollar or more) in respect to every issued share without par value, plus such amounts as from time to time, by resolution of the board of directors, may be transferred thereto.", or

   B. "The capital of the corporation shall be at least equal to the sum of the aggregate par value of all issued shares having par value, plus the aggregate amount of consideration received by the corporation for the issuance of shares without par value, plus such amounts as, from time to time, by resolution of the board of directors, may be transferred thereto."

8. The names and post-office addresses of the directors until the first annual meeting of the stockholders, and if such address shall be in a city, the street and number or other particular description thereof. The number of directors so named must be the number stated pursuant to the last preceding subdivision of this section if a definite number is stated, or if an indefinite number is stated to be provided for, not less than the minimum number.
9. The name and address (post-office) of each subscriber of the certificate of incorporation, and a statement of the number of shares of stock which he agrees to take. If the address of any subscriber shall be in a city, the street and number or other particular description thereof.
10. That all of the subscribers of the certificate are of full age, that at least two-thirds of them are citizens of the United States, and that at least one of them is a resident of the State of New York; that at least one of the persons named as a director is a citizen of the United States and a resident of the State of New York.
11. That the secretary of state is designated as the agent of the corporation upon whom process in any action or proceeding against it may be served.
12. If meetings of the board of directors are to be held only within the state the certificate or by-laws must so provide. (Amended by L 1929, Ch. 600; L 1934, Ch. 908, #1)

There may be included in such certificate an additional statement that the capital shall not be less than ..... dollars.

AMENDMENTS TO CHARTER.—A charter is, in effect, a contract between the state and the corporation. In theory, therefore, the consent of the state must be obtained should the stockholders desire to amend any provision in the charter. Actually, however, the statutes of each state contain provisions permitting the filing of an amendment in the same manner as the original certificate of incorporation.

State laws vary as to procedure in amending a charter, but all are liberal as regards amendment. The chief variation is in the proportion of shares that must approve the amendment.

A change of name, authorization to increase the capital stock, or a change in the location of the principal office can usually be effected with the consent of holders of a majority of the voting stock. A two-thirds majority is required by most states for a change in the corporate powers, since the latter affects the risk to which the stockholder's investment is subject. State laws are not uniform on this matter, so that careful study should be made before beginning proceedings. The usual requirement is that a special meeting of stockholders be called to pass on the amendment. To save time and mailing costs, notice of the special meeting and its purpose are sometimes enclosed in the notice of the annual meeting, and the special meeting is called immediately after the conclusion of the annual meeting.

BY-LAWS.—By-laws are rules formally adopted by the stockholders for the government of the corporation, its officers, and its directors in the conduct of the business. The by-laws may limit but may not extend the powers conferred upon the corporation by its charter. By-laws, for convenience and to assemble all the rules governing operation of a corporation in one place for ready reference, may repeat procedures specifically provided for in the statutes. A by-law in conflict with statutory

provisions, whether adopted before or after the passage of the law, is invalid.

When a corporation is first organized, it is customary for legal counsel to draft a set of by-laws containing the usual provisions for the protection of stockholders. These are adopted by the stockholders at their first meeting. Later, if some prove impracticable or additional by-laws are found necessary, changes may easily be made.

In a small business, by-laws may be simple and few in number, but should be drawn carefully to provide a guide for management and to protect the interests of the stockholders. Legal entanglements occur all too frequently owing to a lack of forethought in drafting by-laws. Large corporations, because of the more extensive and diverse interests involved, usually have very comprehensive sets of by-laws. The trend, however, is toward simplicity.

It is unwise to try by means of by-laws to regulate routine details of management. These should be left to the discretion of the directors. Only matters of routine operation directly affecting the stockholders, such as the disbursement of funds, pledging of corporate assets for loans, and the like, should be covered by by-laws.

Power to Make By-Laws.—In the absence of statutory or charter provisions, stockholders have the exclusive right to enact by-laws. In three jurisdictions, statutes have placed the power in the hands of the directors, namely, in the District of Columbia, Illinois (unless reserved for the shareholders in the certificate of incorporation). The New York statute and the Kentucky statute permit directors to make by-laws subject to the by-laws, if any, adopted by members of the corporation. In New Jersey this power may be granted directors by charter provision, but the power to alter or repeal remains with the stockholders. In Delaware, the power to enact by-laws may be conferred upon directors by the charter, but the initial set of by-laws is adopted by the incorporators.

Typical Provisions.—There are no legal requirements covering the arrangement of by-laws, but customary practice is for related provisions to be arranged by subject in a sequence approximating the following:

I. Stockholders' meetings.
II. Directors and directors' meetings.
III. Standing committees.
IV. Officers.
V. Capital stock.
VI. Dividends and finances.
VII. Sundry provisions.
VIII. Amendments.

Under each of the above headings numerous provisions may be found. The more important details which may be included under the above headings are listed below.

I. Stockholders' Meetings.

Annual Meeting of Stockholders.—The time of the meeting is established, such as "the second Tuesday in January." Mailing of a notice is usually required a specified number of days prior to the meeting.

Special Meetings of Stockholders.—Provisions are made for calling a special meeting by the directors or holders of a specified proportion of the voting stock. They include mailing of the notice and the number of

days in advance of the meeting notice should be mailed, as well as the place of meeting.

Quorums.—The proportion, not more than the maximum prescribed by statute, of stockholders required for a quorum.

Voting.—The statutes of some states prescribe the method of voting, while others leave a choice between one vote per share and the cumulative method. It is usually provided that stockholders may use proxies if they do not wish to attend in person. The eligibility of stockholders to vote is determined by ownership of shares on the day of the closing of the transfer books, which the by-laws set as a day sufficiently in advance of the meeting to insure time to prepare lists of those eligible.

Officers of Meeting.—Unless the by-laws prescribe who shall preside at meetings, a presiding officer must be elected at each meeting. Usually the by-laws provide that the president of the corporation shall preside at the meeting and that the secretary of the corporation shall act as its recording officer.

II. Directors and Directors' Meetings.

Number of Directors.—Statutes usually fix the minimum number of directors a corporation must have at three. A higher minimum may be specified in the by-laws.

Qualifications.—Some statutes require that directors be shareholders, but one share will be sufficient to qualify unless the by-laws require more. In certain states it is provided that the stock ownership requirement may be waived by the charter or by-laws.

Term of Office.—The by-laws customarily provide that directors will hold office for one year, or until replaced if for some reason the stockholders fail to hold an election. Should it be desired that only part of a board of directors be elected each year, the by-laws may divide the directors into classes and provide for initial terms of, say, 1 year, 2 years, and 3 years respectively. Thereafter but one-third of the directors will need to be replaced each year, thus providing for continuity of management policies. Authority may be granted in this section of the by-laws for the directors to elect a new member of the board in case a vacancy occurs during a term.

Other Powers and Restrictions.—Large corporations may provide that directors may contract with the corporation or have a financial interest in contracts with it, provided a majority of directors not so interested approve the contracts. Limitations upon the amount of contracts without approval of stockholders are not common, but in some cases they are appropriate. More frequently the limitation applies to the amount of money which may be borrowed without the express consent of the stockholders.

A provision may be included to allow directors to fix the place of meeting.

Compensation.—Directors receive no compensation, unless it is specifically authorized. There are two types of provisions found in by-laws on this subject. One type fixes the amount of compensation for each meeting, the other permits the directors to fix their own compensation by majority vote. It is usual to specify whether directors will receive compensation for both regular and special meetings, and, where appropriate, to include provisions for traveling expenses.

III. **Standing Committees.** When boards of directors are large it is customary to establish small standing committees and prescribe the duties and powers of each.

IV. **Officers.** By-laws should prescribe the officers of the corporation, their general duties, and any limitation upon their powers. They may also prescribe qualifications, such as that the president shall be chosen from among the directors. Occasionally a maximum limit is placed on salaries which may be authorized by the directors.

It is not wise to attempt by means of by-laws to prescribe the duties of the officers in great detail. It may be provided, however, that one person may hold more than one office, and to prescribe that the treasurer and assistant treasurer be bonded.

V. **Capital Stock.** By-laws respecting capital stock are usually concerned with the form of share certificates, methods of transfer, stock records to be maintained, appointment of stock transfer agent and registrar, and the closing of stock and transfer books for stockholders' meetings and payment of dividends. Stockholders' right to inspect the stock record books is usually set forth in detail even though the statutes of the state may contain detailed provisions on this matter.

VI. **Dividends and Finances.** By-laws restricting financial powers of the board, such as salaries, may be appropriately placed under other headings than finance. Under this heading are commonly found by-laws stating that accounts will be maintained on a fiscal or calendar year basis; provisions covering the authority to establish bank accounts designating the officers who may sign and countersign checks, and a direction that receipts be deposited promptly in the name of the corporation. While the payment of dividends is within the discretion of the directors, the by-laws often prescribe dates for dividend payments. Corporations which, by the nature of their business, are likely to come into possession of stocks and bonds of other corporations should have by-laws relative to the handling of such securities.

VII. **Sundry Provisions.** By-laws providing for profit sharing plans for employees or for the carrying of insurance on the lives of certain executives are illustrations of special matters often found in this section.

VIII. **Amendments.** Provisions relative to amendment of the by-laws will depend on whether they are enacted by the directors or stockholders. Usually, a majority vote is required in each case, with the power reserved to stockholders to amend by-laws made by the directors.

A Typical Set of By-Laws.—A short set of by-laws adaptable to a typical small corporation follows.

BY-LAWS OF A SMALL CORPORATION

Offices

Section 1. **Offices.** The principal office shall be at No. 71 Broadway, in the Borough of Manhattan, City, County and State of New York. The company may have offices and places of business at such other places as shall be determined by the directors.

Stockholders

Section 2. **Annual Meeting.** A meeting of the stockholders shall be held at the principal office at 11 A.M., on the first Monday of December in each year for the purpose of electing directors, appointing two inspectors of election, and for the transaction of any other business authorized to be transacted by the stockholders.

Section 3. **Notice of Annual Meeting.** Notice of the annual meeting shall be given to each stockholder at least ten days prior to the meeting.

Section 4. **Special Meeting.** Special meetings of the stockholders for any purpose may be called by the President and must be called by him on receipt of the written request of the holders of a majority of the stock then outstanding and entitled to vote.

Section 5. **Notice of Special Meeting.** Notice of a special meeting, stating the time, place and purpose or purposes thereof, shall be given to each stockholder at least ten days prior to the meeting.

Section 6. **Quorum.** At any meeting of the stockholders, the holders of a majority of the shares of stock then entitled to be voted issued and outstanding shall be a quorum for all purposes, except as otherwise provided by law.

Section 7. **Voting.** At each meeting of the stockholders every holder of stock then entitled to vote may vote in person or by proxy, and shall have one vote for each share of stock registered in his name.

Directors

Section 8. **Number of Directors: Tenure: Vacancies.** The business and affairs of the company shall be managed and controlled by a Board of five (5) Directors (who need not be stockholders), who shall be elected annually by the stockholders at the annual meeting. Each director may resign at any time. Vacancies occurring among the directors may be filled by the Board or by the stockholders. Any director may be removed at any time by the affirmative vote of a majority of the stock then issued and entitled to vote at a special meeting of stockholders called for the purpose.

Section 9. **Regular Meetings of the Board.** Immediately after each annual election, the newly elected directors may meet forthwith at the principal office for the purpose of organization, the election of officers, and the transaction of other business. If a quorum of the directors be then present no prior notice of such meeting shall be required to be given. The place and time of such first meeting may, however, be fixed by written consent of all the directors.

Section 10. **Special Meetings.** Special meetings of the directors may be called by the President and must be called by the written request of two members of the board.

Section 11. **Notice of Special Meetings.** Notice of a special meeting shall be given to each director at least two days prior to the meeting.

Section 12. **Quorum.** A majority of the directors shall constitute a quorum at all meetings of the board.

Inspectors of Elections

Section 13. **Inspectors.** Two inspectors of elections shall be elected at each annual meeting of stockholders to serve for one year, and if any inspector shall refuse to serve or shall not be present, the meeting may appoint an inspector in his place.

Officers

Section 14. **Executive Officers.** The executive officers of the company shall be a President, Vice-President, a Treasurer and a Secretary, all of

whom shall be elected annually by the directors, and shall hold office during the pleasure of the directors. Any two offices or more may be held by one person. All vacancies occurring among any of the above officers shall be filled by the directors. Any officer may be removed at any time by the affirmative vote of a majority of the directors at a special meeting of directors called for the purpose.

Section 15. **Subordinate Officers.** The Board may appoint such other officers and agents with such powers and duties as it shall deem necessary.

Section 16. **The President.** The President shall preside at all meetings of stockholders and directors. He shall, while the directors are not in session, have general management and control of the business and affairs of the company.

Section 17. **The Vice-President.** The Vice-President shall in the absence or disability of the President exercise the powers and perform the duties of the President and he shall exercise such other powers and perform such other duties as shall be prescribed by the directors.

Section 18. **The Treasurer.** The Treasurer shall have the custody of all funds, securities, evidences of indebtedness and other personal property of the company, and shall deposit the same in such bank or trust company as shall be designated by the directors or the President; he shall receive and give receipts and acquittances for moneys paid in on account of the company, and shall pay out of the funds on hand all bills, payrolls and other just debts of the company of whatever nature, upon maturity of the same; he shall enter regularly in books of the company to be kept by him for that purpose full and accurate accounts of all moneys received and paid out by him on account of the company, and he shall perform all other duties incident to the office of Treasurer.

Section 19. **The Secretary.** The Secretary shall keep the minutes of all proceedings of the directors and of the stockholders; he shall attend to the giving and serving of all notices to the stockholders and directors or other notices required by law or by these by-laws; he shall affix the seal of the company to deeds, contracts and other instruments in writing requiring a seal, when duly signed; he shall have charge of the certificate books and stock books and such other books and papers as the board may direct, and he shall perform all other duties incident to the office of Secretary.

Section 20. **Salaries.** The salaries of all officers shall be fixed by the Board of Directors, and the fact that any officer is a director shall not preclude him from receiving a salary.

Capital Stock

Section 21. **Form and Execution of Certificates.** The certificates of stock of the company shall be in such form as shall be approved by the directors and shall be signed by the President or Vice-President and the Treasurer or Secretary and sealed with the corporate seal. Each certificate shall be consecutively numbered, and the name and residence of the owner, the number of shares, the date of issue and the amount paid thereon shall be entered in the company's books.

Section 22. **Transfer of Shares.** Shares may be transferred on the books of the company by the holder in person or by his attorney, upon the surrender and cancellation of certificates for a like number of shares.

Dividends

Section 23. **Board to Declare Dividends.** The directors may from time to time declare dividends upon the capital stock from the surplus or net profits of the company.

Seal

Section 24. **Seal.** The directors shall provide a suitable corporate seal which shall be in charge of the Secretary and shall be used as authorized by the by-laws.

Fiscal Year

Section 25. **Fiscal Year.** The fiscal year of the company shall begin January first and end on December thirty-first.

Checks, Notes, Etc.

Section 26. Checks and notes of the company shall be signed, and checks, notes, drafts, bills of exchange and orders for the payment of money shall be endorsed for collection or deposit in such manner as shall be determined by the Board.

Section 27. No note or acceptance shall be made except by order of the President.

Section 28. The funds of the company shall be deposited in such bank or trust company, and checks drawn against such funds shall be signed in such manner as may be determined from time to time by the directors.

Notice and Waiver of Notice

Section 29. Any notice required to be given by these by-laws may be given by mailing or telegraphing the same to the person entitled thereto at his address as shown on the company's books, and such notice shall be deemed to be given at the time of such mailing or telegraphing. Any notice required to be given by these by-laws may be waived by the person entitled to such notice.

Amendments

Section 30. **Power of Directors** to Amend, etc. The Board of Directors shall have power to make, amend and repeal the by-laws of the company, by vote of a majority of all the directors, at any regular or special meeting of the Board. The Board of Directors shall have no power, however, to amend or repeal any by-law made by the stockholders.

Section 31. **Power of Stockholders** to Amend, etc. The stockholders may make, alter, amend and repeal the by-laws of the company, at any annual meeting or at a special meeting called for the purpose, and all by-laws made by the directors may be altered or repealed by the stockholders.

STOCKHOLDERS' MEETINGS.—Established procedures are followed in the holding of official meetings for elections of directors and the transaction of important corporate business.

Annual Meetings.—Annual meetings of stockholders are held each year on the date specified in the by-laws. Although stockholders are presumed to know the by-laws and hence cannot plead lack of notice if none is given, the by-laws customarily provide for such notice, and directions as to how and when it is to be given are set forth in detail. Some statutes require the mailing of a notice to each stockholder, and in such states failure to mail the notice may invalidate the meeting It becomes the duty of the secretary of the corporation in such cases to prepare and mail the notice, and he will retain a copy on which the date of mailing has been entered as proof that the by-laws have been complied with. Occasionally the by-laws require that the secretary shall publish the

notice in one or more newspapers. A typical form of notice mailed to stockholders is as follows (Fig. 1):

The XZ Manufacturing Corporation

Notice of Annual Meeting of Stockholders

Notice is hereby given that the annual meeting of the stockholders of the "XZ" Manufacturing Corporation will be held at the office of the Company, 120 Broadway, New York, N. Y., at 2 o'clock P.M. on the 5th day of January 19... for the election of directors and the transaction of such other business as may come before the meeting.

Stockholders entitled to vote at the annual meeting will be stockholders of record at the close of business on the 31st day of December 19...

John Doe
President

Richard Roe
Secretary

New York, December 1, 19...

FIG. 1. Notice of Annual Meeting of Stockholders

The meeting is usually held in the principal office of the corporation. Large corporations and those whose principal office is not located in the state where the meeting must be held according to law may utilize facilities provided by one of the large corporation service organizations who are prepared to take care of the meetings. For example, meetings of a number of corporations with principal offices in New York are held in New Jersey because they are incorporated there, often at offices provided by trust companies. Meetings must be held within the state of incorporation, unless the statute specifies that the corporation by-laws may authorize meetings in another state, and the by-laws have so provided.

Procedure at Annual Meetings.—A stockholders' meeting is frequently attended by directors and officers. In large, publicly owned enterprises members of the press who are not stockholders may be permitted to attend as a matter of courtesy. But only stockholders entitled to vote, their proxies, and such officers as are designated by the by-laws to be officers of the meeting attend as a matter of right. In addition, legal counsel for the corporation usually is on hand to advise. If there is to be a struggle between opposing groups, each group may have its legal counsel present.

The procedure at an annual meeting is usually as follows:

1. Calling the meeting to order.
2. Election of officers (if not designated by the by-laws).
3. Appointment or election of inspectors.
4. Reports of officers.
5. Reports of committees.
6. Election of directors.
7. Unfinished business.
8. New business.

A number of statutes provide for **inspectors** or **judges of election** to be appointed at a stockholders' meeting at which directors are to be elected. The manner of appointment of inspectors should be specified in the charter or by-laws. In the absence of such provision, stockholders

ordinarily elect inspectors at the start of the meeting. Unless so required in the by-laws, inspectors of election need not be stockholders. In the event of a contest for control, inspectors of election will be called upon to determine the validity of proxies, many of which are likely to be contested. Where the statute, charter, or by-laws do not provide for inspectors, they need not be appointed. In that event, the stockholders themselves may pass upon the validity of contested votes, unless the by-laws authorize the chairman or the president to do so.

It is customary at annual meetings for the president to discuss the progress of the business during the year past, and to present plans for the future. Printed statements of the financial condition of the corporation may be distributed to stockholders at the meeting, and the financial status of the corporation may be explained by either the president or the treasurer. Where standing committees have been appointed by the stockholders, their reports are received at this time.

Special Meetings of Stockholders.—The by-laws outline the method by which a special meeting of stockholders may be called and describe the notice to be given. Usually the right to call such a meeting is vested in the board of directors, the president, or a certain percentage of the voting stockholders. Upon the authority of the call made in the manner prescribed by the by-laws, the secretary will prepare and mail the notice. Such a notice, to be valid, must state the business to come before the meeting, for valid action may be taken at a special meeting only upon the matter for which the meeting was called as set forth in the notice. As in the case of the annual meeting, the notice must be mailed in conformity with the by-laws, which specify the number of days prior to the meeting that a notice shall be mailed. The statute may set a minimum time for such notice which cannot be shortened by the by-laws. An example of a formal call by the board of directors of a corporation for a special meeting follows:

Call for Special Meeting of Stockholders

We, the directors of the X Corporation do hereby call a special meeting of the stockholders of said corporation to be held at the office, No. 120 Broadway, New York, N. Y., on the 10th day of January 19... at 2 o'clock P.M. for the purpose of considering and acting upon a proposed increase in the capital stock from 240,000 to 350,000 shares and to do all things necessary in connection therewith, and we do hereby authorize the secretary of the corporation to send out notice of said special meeting in the form and manner prescribed by the by-laws of this corporation.

John Smith
Will Caster
Edward McLain

New York, N. Y.
Dec. 1, 19...

To Richard Roe
Secretary of the X Corporation

A notice to the stockholders mailed by the secretary of the corporation pursuant to the call outlined above might be as follows:

Notice of Special Meeting of Stockholders

Notice is hereby given that a special meeting of the stockholders of the X Corporation has been called by the Board of Directors to be held at the

principal office of the corporation, 120 Broadway, New York, N. Y. on the 10th day of January 19... at 2 o'clock P.M. for the following purpose:

Considering and acting upon a proposed increase in the capital stock from 240,000 to 350,000 shares and to do all things necessary in connection therewith.

By order of the Board of Directors

Richard Roe
Secretary

New York, N. Y.
Dec. 5, 19...

Procedure at Special Meetings.—Immediately following the calling to order of a special meeting the secretary reads the notice of meeting and an affidavit to the effect that it was mailed in the prescribed manner. His statement is written into the minutes as proof of the validity of the meeting. The purpose of the meeting is then explained and a suitable motion put for vote; after opportunity is afforded for discussion a vote is taken. While no action may be taken on any other matter, the presiding officer may permit discussion. The meeting normally adjourns as soon as the result of the vote is announced.

Consent Meetings.—Consent meetings are special meetings not properly called, and for which notice in the form prescribed by the by-laws has not been given. They depend for their validity upon the presence of all of the stockholders or upon the willingness of those not present to sign a waiver of the call and notice. It is usual to have the stockholders present sign the minute book as evidence of their presence, and the signed waivers of call and notice are posted in the minute book as a permanent record. Consent meetings are limited to small corporations with few stockholders.

The Board of Directors

LEGAL POSITION.—The legal status of the board of directors, considered collectively, is that of **agent** for the corporation. The corporation may act only through the board. But this is no ordinary agency, for the powers exercised by the directors are not specifically granted to them by the corporation. Rather, they are found in all the statutes, charter provisions and by-laws, or they are established by custom. The directors may delegate some of their powers to officers, a privilege not possessed by an ordinary agent. Directors are often referred to as trustees, but here too they are not trustees in the ordinary usage of the word, for they do not hold title to the property of the corporation.

A more accurate statement would be to say that directors occupy a position of trust, or a **fiduciary relationship** toward the corporation and to the stockholders collectively. Some of the rules of law applicable to agents and many of the rules relative to trusteeship are applicable to directors. More important for an understanding of a director's legal status is his well-established responsibility to exercise the **utmost good faith** in dealing with corporate property, and not to seek his own advantage at the expense of the corporation's or its stockholders', together with an obligation to exercise prudence and diligence in the management of the corporation's affairs.

A director does not have to know the technical details of the operation of a business. All that is expected is that he will apply whatever skill and ability he possesses with diligence to the business of the corporation. The rule is stricter in the case of bank directors, courts in some states having held that by accepting a directorship in a bank a person represents that he possesses at least ordinary knowledge and skill. The tendency in the last 20 years has been to apply more severe standards to such matters as attention to the affairs of the business and the duty to check on the performance of the officers. The Federal Securities Act imposes liability specifically for misrepresentation of material facts in registration statements.

STATUTORY PROVISIONS COVERING DIRECTORS.—The position of directors in governing the affairs of a corporation is so important that state corporation laws contain a number of provisions covering their selection and activities.

Qualifications of Directors.—The statutes of the state of incorporation, the charter, and in some instances the by-laws may establish qualifications for directors. Eighteen states and the District of Columbia require that directors be stockholders. If the purpose of imposing such a qualification is to insure that directors would have a financial interest in the corporation, the statutes fail to achieve this end, for it has become common practice to transfer by agreement to a nonstockholder whose services are desired as a director a single "qualifying" share to make him a shareholder of record without a bona-fide interest. This qualifies him in the eyes of the law in most jurisdictions.

Some statutes require that the directors, or some of their number, be citizens or residents of the state. Few large corporations place qualifications for directors in their charter or by-laws. Small corporations occasionally add qualifications to keep control within a family group or a certain community.

Number of Directors.—The statutes usually provide that the charter or by-laws of a corporation shall fix the number of directors in excess of a minimum number, usually three. New York, to make it possible to change the number by means of by-laws, allows two types of charter provisions, one which fixes the number at any figure above three and an alternative which allows the charter to name the minimum (not less than three) and a maximum, leaving it for the by-laws to specify the exact number.

Large corporations with far-flung interests may find it desirable to have large boards in order to have the benefit of the experience and connections of men familiar with the diverse problems common to concerns of such size. There may be other objects, such as the reconciliation of conflicting stockholder interests, a desire to have operating executives on the board, or merely a desire for prestige by adding prominent persons to the board. Liabilities imposed upon directors by the Federal Securities Laws and some court decisions have made prominent and influential men less ready to accept membership on boards of directors where they are unable to safeguard their interests by active participation in meetings and study of the affairs of the corporation.

Election of Directors.—Directors are normally elected at the annual meeting of stockholders. If there should be a vacancy due to death, resignation, or a revision of the charter or by-laws providing for additional directors, a special meeting may be called for the election. The laws of New York prescribe that, in the event of failure to elect directors at a meeting because of lack of a quorum, a special meeting shall be called for the purpose at which those present will constitute a quorum. Until a new board of directors is elected, the old board "holds over" even though the term for which its members were elected has expired, and they are considered de facto directors (directors in fact), with all the powers possessed during their regular term.

A typical form for notice of annual meeting of stockholders for election of directors and other business is shown in Fig. 1 above.

Compensation of Directors.—Directors serve without compensation, unless compensation is fixed by the by-laws or they are empowered by the by-laws to fix their own compensation, usually a small fee for each meeting. Where the chairman of the board of directors or a committee of the board is expected to assume duties comparable to those of an officer, he will usually receive a salary which will be authorized by the by-laws. Occasionally directors serve as officers and are paid the salaries fixed for such posts. As a matter of precaution, directors who are to be salaried officers of the corporation should not attend meetings of the board when the salaries are being considered or fixed, as the contract may be questioned later.

Where a director renders services which are beyond those which he might reasonably be expected to give, as when a lawyer who is a member of the board represents the corporation as its attorney or an engineer who is a director prepares detailed plans for the construction of a bridge, he may expect to be paid the fair value of such services. Even in the absence of a contract, it will not be implied that he rendered the services as part of his duty as a director.

Resignation and Removal of Directors.—Directors may resign at any time, leaving a vacancy on the board of directors. The best practice is to authorize the remaining directors to fill vacancies created by resignation or death, without a special stockholders' meeting for the purpose. This may be accomplished by a suitable by-law provision.

It is extremely difficult to remove directors in the absence of by-law, charter, or statutory authority, which is seldom provided, until the expiration of their term in office. Misconduct or unfitness must be proved to the satisfaction of the court. Even though stockholders complain that the management is inefficient and the directors incompetent, the courts will not interfere because the directors were selected and placed in office by the stockholders, who can replace them at the next meeting. But stockholders may by court action obtain injunctions against wrongful acts and acts which do not fall within the definition of ordinary prudence. So difficult is it to remove directors that majority stockholders sometimes call special meetings to amend the by-laws or charter to provide for sufficient additional directors to outvote those who have proved undesirable.

Directors' Liability.—The fiduciary relationship existing between the directors and the corporation gives rise to liabilities when directors are

guilty of a breach of trust. Directors are ordinarily not held liable for honest mistakes of judgment, no matter how costly to the corporation. They are, however, expected to exercise ordinary prudence and diligence in the management of corporate affairs, and where failure to act in this manner results in loss to the corporation, stockholders may hold them liable through a representative action brought in the name of the corporation. It is difficult to judge in advance when directors will be held liable for losses caused by their negligence, due to wide differences in court decisions and judicial reluctance to lay down general rules. **Bank directors** have been held liable for not making inquiry into the nature of the loans made by the officers, when it was proved that such loans were made in violation of law or without ordinary care. Directors who cause their dissent to be entered on the minutes when action is taken by the board are not liable for the losses caused by such action of the majority. Absence from meetings of the board is not in itself negligence, but may be so considered in the light of circumstances. For example, absence because of illness or an occasional absence do not ordinarily indicate neglect of duty. But habitual absence may be held tantamount to a disregard of the responsibility assumed by the acceptance of membership on the board.

Directors who deliberately exceed powers granted them in the charter or by-laws are liable to the corporation for losses resulting from such ultra vires acts.

Directors are liable for **fraud.** An example of fraud is the use of their position as directors to make contracts unfair to the corporation from which they benefit personally. In this category also falls the issuance of stock to directors without adequate consideration, loans to directors and officers that are inadequately secured and unpaid, and **unreasonable salaries and bonuses.** The courts have been reluctant to impose liability on directors who take advantage of intimate knowledge of a corporation's affairs to trade in stock of the corporation, it having been held that a director (Bowden v. Taylor, 254 Ill. 464, 467) "is not a trustee for such stockholder with respect to his stock. Officers of a corporation may purchase the stock of stockholders on the same terms and as freely as they might purchase of a stranger."

STATUTORY PROVISIONS AFFECTING DIRECTORS.— Many of the liabilities imposed on directors by common law are also found in the statutes. In some instances, statutes provide fines and penalties. For example, a provision in a state statute against issuing false financial reports, or requiring the keeping of certain records may also impose a fine for violations.

Some of the acts for which liability is imposed in statutes are:

1. Payment of dividends, except from surplus.
2. Accepting promissory notes in payment for stock.
3. Impairing capital through purchase by a corporation of its own shares.
4. Failure to keep certain records.
5. Failure to permit examination of certain record books by stockholders.
6. Issuing stock for inadequate consideration.
7. Transferring property of an insolvent corporation for purposes of defrauding or preferring creditors.

8. Conversion, misapplication, or fraud, in connection with the corporation's property.
9. Issuing false financial statements or reports.
10. Assenting to loans to officers or directors.

Directors of corporations whose securities are offered publicly and those whose securities are listed on stock exchanges are further liable under certain provisions of the Securities Act of 1933 and the Securities Exchange Act of 1934. These liabilities are both civil and criminal. Violation of the Securities Act of 1933 subjects wilful violators to a fine of not more than $5,000 or imprisonment for not more than 5 years, or both. Where there is an untrue statement of a material fact or omission of a material fact required to be stated as necessary to make statements made in a registration statement not misleading, directors and others named in the act are liable to the purchaser for the difference between the price (not in excess of the offering price) and the market value at time of suit. If the purchaser has sold the security, the director is liable for the difference between the price paid (not in excess of the offering price) and the price at which sold. The law provides certain exceptions under which directors may escape liability. It is important that directors of any corporation distributing its securities to the public be familiar not only with the federal securities laws, but also with the regulations issued by the Securities and Exchange Commission under them.

Directors are required to refund profits realized from the sale of listed stocks where sold within 6 months after purchase, under the Securities Exchange Act of 1934.

COMMITTEES OF THE BOARD.—Large boards of directors are unwieldy. If members are drawn from sections of the country remote from the place of meeting, it may be difficult to secure a quorum. Even if it is possible to assemble the board frequently, the transaction of business is slowed down in a large board if more than perfunctory attention is given matters under consideration. The business of a large corporation is complex, and it is not to be expected that all the directors of a large board will be sufficiently familiar with the details to pass intelligently upon them. It is customary, therefore, and legally within the power of the board to establish standing committees to take care of specified matters of the business.

These smaller bodies can assemble as often as necessary. Because of their smaller size, they are able to transact business with dispatch. Committee members are chosen with a view to their knowledge of the type of problems likely to come before the committee.

Executive and Finance Committees.—Often there is but one committee, the **executive committee.** This committee is usually empowered to exercise all the powers of the board at intervals between board meetings. In addition, however, there may be a **finance committee** which, as is indicated by the name, supervises the corporation's finances. Provisions of the by-laws of the General Motors Corporation quoted below indicate powers of these two standing committees:

> The Board of Directors shall elect from the Directors an Executive Committee and a Finance Committee, and shall designate for each of these Committees a Chairman of the Committee to serve during the pleasure of the Board of Directors. . . .

During the intervals between meetings of the Board of Directors, the Executive Committee shall possess and may exercise all the powers of the Board of Directors in the management and direction of all the business and affairs of the Company (except the matters hereinafter assigned to the Finance Committee) in such manner as the Executive Committee shall deem best for the interests of the Corporation in all cases in which specific directions shall not have been given by the Board of Directors. . . .

The Finance Committee shall have special and general charge and control of all financial affairs of the Corporation and such other matters as may be assigned to it from time to time by the Board of Directors. The Secretary, Assistant Secretaries, Treasurer, Assistant Treasurers, Comptroller, Assistant Comptrollers, the Accounting Department and their respective offices shall be under the direct control and supervision of the Finance Committee.

During the intervals between the meetings of the Board of Directors, the Finance Committee shall possess and may exercise all the powers of the Board of Directors in the management of the financial affairs of the Corporation and such other matters as may be assigned to it from time to time by the Board of Directors, in such manner as said Committee shall deem to be best for the interests of the Corporation, in all cases in which specific directions have not been given by the Board of Directors.

Limitations on Committee Powers.—In spite of apparently sweeping powers given standing committees either in the by-laws or by resolutions of the board of directors, there are limitations upon their powers. They may act only on ordinary matters arising in the usual course of business. Exceptional matters should be passed upon by the whole board, for the validity of actions taken may otherwise be successfully attacked in the courts. The distinction between ordinary and exceptional matters depends on the manner in which the corporation has been conducting business and the nature of the question. Certainly declarations of dividends, decisions to expand substantially operations of the corporation, new plant and property acquisitions and similar matters greatly affecting the corporation's finances and business should be voted on at meetings of the whole board. However, if a committee's action is ratified formally by the board, or if the board is made aware of such action and takes no step to rescind it, decisions of the committee become those of the board. The board may overrule its committees, unless rights of outsiders acquired by a committee's action will be impaired.

DIRECTORS' MEETINGS.—Directors manage a corporation by collective action. Directors as individuals have the right to inspect the corporate books and otherwise to inform themselves of the affairs of the corporation, but can take no action as individuals. Directors must meet and, by concerted action, exercise their powers and perform their duties.

By-laws prescribe the time and place of the regular meeting of the board, and specify the manner in which special meetings may be called. It is customary to provide that the president of the company or the chairman of the board may call a meeting upon a specified number of days' notice. Informal meetings may be validated even though not called in the manner prescribed in the by-laws, provided the directors sign a call and waiver of notice or, if they are already assembled, sign a written consent that is placed in the minutes. Small corporations frequently dispense with regular meetings where directors are actively engaged in the business and formal meetings are not necessary. However, when the

statute requires formal action, a meeting must be held. Special meetings of directors, unlike those of stockholders, may act upon any matter brought before them, and no statement of the purpose of the meeting need be included in the notice.

Corporate Officers

TITLES AND FUNCTIONS OF OFFICERS.—The proper functioning of a corporation requires a minimum of three officers—a president, secretary, and treasurer. These offices may be filled, unless contrary to state law, by two persons, for the duties of secretary and treasurer do not conflict and may be combined in one person. Statutes prescribe the officers required either directly or by implication. They may state that there shall be a president, secretary, and treasurer, or they may refer to such officers in other provisions. For example, the Delaware law (General Corporation Law, Section 10) provides in detail for the officers as follows:

> Every corporation organized under this chapter shall have a president, secretary and treasurer, who shall be chosen by the directors; the secretary shall be sworn to the faithful discharge of his duties, and shall record all the proceedings of the meetings of the corporation and directors in a book kept for that purpose, and perform such other duties as shall be assigned to him; the treasurer may be required to give bond in such sum and with such surety or sureties as shall be provided by the by-laws, for the faithful discharge of his duty. . . .
>
> Any two offices (but not more than two) may be held by the same person. More than two offices other than the offices of President and Secretary may be held by the same person if the By-laws so provide.

The Illinois law provides that "The officers of the corporation shall consist of a president, secretary and treasurer, and such other officers as may be determined by the directors." Frequently, the directors also elect vice-presidents, assistant treasurers, assistant secretaries, and a controller and, occasionally, an auditor. A number of larger organizations dignify heads of departments by making them vice-presidents. New business representatives of banks may be made assistant secretaries to give them more prestige. Where there are a number of vice-presidents, one may be designated as first or executive vice-president to indicate that he will act for the president in the latter's absence. It is not unusual to combine the office of vice-president with that of treasurer or secretary.

QUALIFICATIONS OF OFFICERS.—A number of statutes provide that the president must be chosen from among the directors. With the exception of this requirement, they leave the qualifications of officers to the by-laws. If the by-laws are silent, as they frequently are on this matter, the choice of officers is left freely to the directors. In small corporations, directors and officers are often the same persons.

The directors must rely on the officers to carry out their responsibilities faithfully and efficiently. If the officers fail, it is the board of directors who must bear the responsibility, since the officers are their agents in the management of the corporation's business. It is customary for the directors to fix the officers' salaries, although these are occasionally set in the by-laws.

POWERS AND DUTIES OF OFFICERS.—Officers of a corporation derive their powers from (1) the statutes, (2) the charter, (3) the by-laws, (4) resolutions of the board of directors, and (5) custom or usage. For example, a statute may require the president to act as agent for the corporation in the acceptance of process in legal actions against the corporation, or that the treasurer render certain financial reports. The charter defines the type of business the officers are to conduct. By-laws may require the president to preside at stockholders' meetings, the treasurer to prepare annual financial reports, and the secretary to prepare and mail notices and record the minutes of meetings. The board of directors may by resolution require officers to make certain reports, and may limit their powers or extend them beyond those ordinarily exercised.

Custom and usage, however, are the chief determinants of officers' powers, and define most of their duties. Officers have been found negligent by the courts because they did not perform the duties customarily exercised by corporate officers. Third parties have held corporations to contracts made by officers contrary to instructions in resolutions of the board or by-laws, because by ordinary usage they are considered to have had the right to believe that the officers had the power to make the contracts in question. The situation will vary from one corporation to another. In some corporations the president is chosen chiefly for his ability to promote sales, and manufacturing details are left to a technically trained general manager. In others, where the president's job is like that of a general manager, the powers ordinarily exercised by the president are possessed by the chairman of the board of directors.

The Treasurer.—The treasurer is the financial officer of the corporation. While the statutes are usually silent as to the many duties and responsibilities of the treasurer, by-laws frequently treat them in detail because of the importance of the office. The following by-law provisions define the treasurer's duties and responsibilities in a typical manner:

The treasurer shall have custody of and be responsible for all money and securities of the company; shall keep full and accurate records and accounts in books belonging to the company, showing the transactions of the company, its accounts, liabilities, and financial condition, and shall see that all expenditures are duly authorized and are evidenced by proper receipt and vouchers. He shall deposit, in the name of the company, in such depository or depositories as are approved by the directors, all moneys that may come into his hands for the company's account. His books and accounts shall be open at all times during business hours to the inspection of any director of the company.

The treasurer shall also indorse for collection or deposit all bills, notes, checks, and other negotiable instruments of the company; shall pay out money as may be necessary in the transactions of the company, either by special or general direction of the board of directors, and on the checks signed by the president and himself and shall generally together with the president have supervision of the finances of the company.

He shall also make full report of the financial condition of the company for the annual meeting of the stockholders and shall make such other reports and statements as may be required of him by the board of directors or by the laws of the state.

He shall give bond in the sum of $5000 with sureties satisfactory to the board of directors for the faithful performance of his duties and for the restoration to the company in the event of his death, resignation or removal from office of all books, papers, vouchers, money and other property

belonging to the company that may have come into his custody. He shall receive such compensation, not exceeding $5000 per annum as may be fixed by the board of directors.

The treasurer of larger corporations may divide the responsibilities set forth in the above by-law provisions with an officer known as the controller. Where there is a controller, the treasurer's primary duty is the custody of monies and securities, and he will have direct charge of the books of account which record changes in cash and securities owned. To this end, he will also maintain the corporation's bank account, probably act as a cosigner of checks, and will carry out the purchase and sale of securities. It is not the treasurer's duty to select the bank at which the corporation's funds are to be deposited, but he may recommend a bank to the directors.

As indicated by the above extract from the by-laws, the treasurer may be required to give a bond. This practice is general, and should be followed even in small corporations.

Although the by-laws prescribe the duties of the treasurer he is subordinate to the president and the board of directors, who may prescribe the manner in which his duties are to be carried out and exercise supervision over him. There is nothing to prevent the directors or the president adding duties or responsibilities to those set forth in the by-laws.

The Controller.—Large corporations may have an officer known as **controller** or **comptroller.** This officer relieves the treasurer of the duty of keeping the books of account and other records of the corporation, leaving to the treasurer the handling of the corporate funds. The controller usually supervises all types of statistical reports used to control the operations of the corporation, and has direct charge over the accounting department. He is usually responsible for approving all vouchers before the treasurer may pay bills. Since his office is independent of the treasurer's, the corporation is thus provided with an additional check over its disbursements. Unless the corporation has an auditor independent of the controller, the latter is responsible for the periodical audit of accounts and the preparation of financial reports.

It is to the controller that the president looks for records which measure operating efficiency. His duties go far beyond the determination of profit and loss after operations are complete. His function is dynamic, in that he is expected to establish the data and reports by which control over operations may be maintained at all times. Weaknesses and losses can then be checked before they become serious. Even in an organization of moderate size, the presence of a competent controller or an employee performing similar duties is highly desirable for efficient operation.

The Secretary.—The secretary is the recording officer of the corporation. A few statutes impose specific duties upon the secretary. More frequently, the statutes impose duties upon the corporation, such as the preparation of an alphabetical list of stockholders, which either devolve upon the secretary under the by-laws or are performed by the secretary as one of the functions customarily undertaken by his office. Charters rarely mention the secretary, but the by-laws invariably place upon him such duties as acting as secretary at stockholders' and directors' meetings, mailing notices of meetings, keeping the minute books, and having custody of the corporate seal. By-laws ordinarily include in the recital of

the secretary's duties, those specified by the statute, in order to assign responsibility definitely and to make sure that these functions will not be overlooked.

Upon the secretary is placed responsibility for keeping the corporate officers informed of reports due governmental agencies. For this function he will keep in close touch with legal counsel for the corporation. The secretary, more than any other officer, is directly concerned with stockholder relations. It is to the secretary that they look for the preparation of lists of those eligible to vote at meetings, notices of meetings, and the proper recording of resolutions. In many corporations, the secretary is in charge of the stock record books.

In smaller corporations, the secretary may be more concerned with the operation of the business than with the recording functions. In such cases, it may be prudent to engage legal counsel to see that corporate meetings are called properly, that the procedure called for by law is followed and that proper records are maintained.

EXECUTIVE COMPENSATION.—Provision of adequate financial incentives for corporate management has long been recognized as a problem in an economic system where ownership and management of enterprise have become separated to an increasing extent. Unless management has a stake in profits, those who conduct a business do not have the same financial incentive to expand profits as did the entrepreneur of old, who owned as well as managed his business.

Bonuses, profit-sharing, stock ownership plans and stock purchase warrants have been widely used through the years to provide added incentives to management, over and above the fixed salaries paid. High personal income taxes, however, have tended to make such executive compensation plans obsolete. Where the bulk of additional compensation received by an executive is absorbed in taxes, these incentives have but limited effectiveness.

A solution to the problem of providing more adequate financial incentives for management is offered by Revenue Act provisions which authorize pension and profit-sharing plans that furnish benefits which are not taxable to the recipient currently as they are set aside for him. These plans, when approved on the basis of broad coverage and other standards set by law, provide deferred income to executives and other employees of a corporation that is taxable only when received after retirement or severance of employment. Beneficiaries may expect that they will be subject to lower rates of personal income rate taxation at that time, both because their ordinary income will be lower or cease entirely and because income tax rates may be reduced by that time. Should they not survive, their dependents will participate in death benefits provided.

These plans, which have greatly gained in popularity, may or may not be based on profit sharing. Employee pension and profit-sharing plans are discussed at length in the section devoted to this subject.

SECTION 10

CORPORATE STOCK

CONTENTS

PAGE

Nature of Capital Stock

The stockholder's relationship to the corporation 407
Liability of holders 407
Stock certificates 408
Negotiability of stock certificates 408
Stock transfer procedure 409

Par Value of Corporate Stock

Use of par value 410
Legal significance of par value 410
Donated stock fiction 410
"Full-paid and nonassessable" 411
Low par value 412
Par value stock certificate (*f.* 1).. 412

No-Par Value Stock

Reasons for adoption 413
Stated value no-par stock 413
True no-par stock 413
No-par stock in the balance sheet.... 414
Objectionable methods of presenting no-par stocks in balance sheet 415
Advantages of no-par stock 416
Disadvantages of no-par stock 416
No-par value stock certificate (*f.* 2) 417

Stock Terms and Definitions

Authorized stock 417
Reservation of authorized stock 418
Changes of authorized capital stock 418
Issued stock 419
Full paid stock 419
Part-paid stock 419
Treasury stock 419
Methods of acquisition 420

Voting Power

Voting by stockholders 421
Cumulative voting 421
Contingent voting 422
Proxies 422
Proxy and proxy statement (*f.* 3) 423–427
S.E.C. proxy regulations 427
Voting trusts 435

PAGE

Stock Subscriptions

Legal status 435
Form of stock subscription (*f.* 4) 436

Preferred Stock

Classes of stock 436
Definition of preferred stock 437
Dividend preference 437
Classes of preferred stock 437
Participating preferred stock 438
Asset preference 438
Protective provisions 439
Voting power of preferred stock 439
Redeemable preferred stock 439
Convertible preferred stock 440

Other Classes of Stock

Classified common stocks 441
Guaranteed stock 441
Founders' shares 442

Sale of Stock

Preemptive rights 442
Sale to stockholders 443
Sale to the general public 443
Sale of stock to employees 443
Sale of stock to customers 444

Stock Subscription Rights

Action by the board of directors 444
Action by stockholders 444
Letter to stockholders 444
Letter to stockholders announcing plan for a new stock offering to them (*f.* 5) 445
Letter offering stock for subscription by stockholders (*f.* 6) 446
Subscription warrants 444
Letter of transmittal to accompany subscription warrants (*f.* 7) 447–449
Value of subscription rights 449
Market quotations for rights 450

Bonus Stock

Definition and uses 451
Consideration for bonus stock 451

PAGE

Stock Purchase Warrants

Nature of stock purchase warrants.. 451
Detachable and nondetachable warrants 452
Duration of the option 452
Exercise of the option 453
Option warrants and preemptive rights 453

PAGE

Fractional Shares

How fractional shares arise 453
Inconvenience caused by fractional shares 454
Methods of disposing of fractional shares 454
Scrip certificates 454
Credit for fractional shares 455

SECTION 10

CORPORATE STOCK

Nature of Capital Stock

THE STOCKHOLDER'S RELATIONSHIP TO THE CORPORATION.—Ownership of a corporation is divided into **shares** of capital stock evidenced by **certificates** held by shareholders. A certificate may be issued for any number of shares, it being customary for a stockholder to have his total ownership in a corporation evidenced by one certificate. The owners' equity, or the interest of the shares, consists of the value of the assets, less sums due creditors. This equity, divided by the number of shares outstanding, yields a quotient which is the **book value** of each individual share. Market value, which usually varies widely from the book value, reflects the demand for, and the supply of, the shares, which are influenced primarily by the prospective earnings of the corporation. Stock may be preferred as to dividends and assets, but preferred shareholders are owners and not creditors. The return received by shareholders is a dividend, not interest, regardless of the terms of the stock issue.

Although some of the rights listed below are occasionally surrendered by shareholders, or exceptions to them are noted in the certificate of incorporation, stockholders of a corporation ordinarily possess the following rights:

1. To hold a proportionate ownership in the assets of the corporation, evidenced by a certificate.
2. To transfer ownership of their shares.
3. To receive dividends on their shares when declared by the board of directors.
4. To inspect the corporate books. However, this does not extend to an examination of the books of account or minutes of directors' meetings except under special circumstances.
5. To subscribe proportionately to any new issue of stock.
6. To vote at stockholders' meetings.
7. To vote on questions affecting the corporation property as a whole.
8. To protect the corporation against wrongful acts of management.
9. To restrain ultra vires acts of the corporation.
10. To share in the proceeds of dissolution.

Liability of Holders.—Stockholders are ordinarily liable only for the loss of their interest in the corporation in the event of failure. New York's statute makes stockholders liable for wages due if not recoverable from the corporation. Formerly, stockholders of banks, national and state, were subject to double liability, but this has been generally eliminated.

STOCK CERTIFICATES.—Stock certificates are written evidences of ownership of shares of stock. The issue of stock certificates is not necessary either to the existence of the corporation or to make one a stockholder in a corporation. A stockholder becomes a shareholder as soon as his subscription is received by the corporation and related statutory and charter provisions have been fulfilled.

If stock is purchased in the open market, the holder is not entitled to vote it or receive dividends on it from the corporation until the shares have been transferred to his name on the corporation's books. He has, however, a claim against the seller of the stock for dividends that accrue to the owner between the date of purchase and the date of transfer of shares.

The New York Stock Exchange does not permit its members to vote stock bought or sold for customers that is in process of transfer.

Negotiability of Stock Certificates.—Stock certificates, being instruments evidencing participation in ownership rather than evidences of debt like promissory notes or bonds, are not inherently negotiable. In states which have adopted the **Uniform Stock Transfer Act.** This Act permits transfer of title to corporate stock represented by certificates:

1. By delivery of the certificate, endorsed either in blank or to a specified person appearing on the certificate to be the owner of the shares represented thereby; or
2. By delivery of the certificate and a separate document containing a written assignment of the certificate, signed by the person appearing on the certificate to be the owner of the shares represented thereby. Such assignment or power of attorney may be drawn either in blank or to a specified person.

In addition, title to stock seized by court order may be transferred by separate instrument.

The usual practice when stock certificates are sold through brokers is to endorse them in blank. They may then pass through many hands before again being transferred on the books of the corporation to a new owner of record.

The negotiable instrument status given stock certificates greatly facilitates transfers. It is unnecessary, in states where the Uniform Stock Transfer Act is in effect, to make an extensive investigation of the genuineness of the title of owners of stock certificates offered for sale. A purchaser for value of a stolen certificate, endorsed by the owner in blank, is secure in his title if he has no knowledge of the theft. It is necessary only that the holder be a bona fide purchaser, as defined by the Act, "a purchaser for value in good faith, without notice of any facts making the transfer wrongful."

In the states where a Uniform Stock Transfer Act is not in force, one who buys a stock certificate from a finder or thief acquires no title.

This law also affects assignments and transfers without actual delivery of the stock. Under the Uniform Stock Transfer Act, transfer of ownership without actual delivery is considered merely a promise to transfer. If the vendor does not deliver but instead transfers to another **bona fide purchaser** for value, the stock certificate cannot be recovered, the first buyer's only remedy being to sue the vendor for damages for breach of contract. But the recent trend of the law in states where the

Uniform Stock Transfer Act is not in force is also toward the protection of a bona fide purchaser. For example, a transferor even in these states cannot rescind a transfer of stock because the transferee obtained the certificate through fraud, duress, by mistake or without consideration, provided the certificate has meanwhile come into the ownership of another bona fide purchaser for value. (See Cook on Corporations, 8th ed., Sec. 438.)

When stock certificates are lost or accidentally destroyed, before issuing new certificates corporation officers usually require that the owner set forth in an affidavit all the facts surrounding the loss, and that a bond be posted to secure the corporation against the possibility that the lost shares may be presented later by an innocent purchaser for value.

STOCK TRANSFER PROCEDURE.—The transfer of stock in large corporations is facilitated by the use of transfer agents and registrars. Trust companies maintain facilities for handling economically large numbers of transfers which occur daily in the shares of corporations whose stocks are traded on the security markets.

A **transfer agent** supervises and certifies transfers of corporate stock. The extent of his supervision depends upon custom or his specific agreement with the corporation. He usually keeps the stock certificate book in his custody. When a transfer is to be made, the certificate of stock, duly assigned, is surrendered to the transfer agent, who thereupon cancels the surrendered certificate, attaches it to its proper stub in the stock transfer book, and then issues a new certificate in the name of the transferee. This certificate is sent to the proper corporate officials who affix their signatures and the corporate seal—unless the corporate seal is entrusted to the transfer agent—make the required entries in the transfer and stock books held by the corporation and return the signed, or signed and sealed, certificate to the transfer agent. The transfer agent thereupon seals the certificate, if not already sealed by the corporation, certifies it has been duly issued, and delivers it to the transferee.

Occasionally, even though a transfer agent is employed, the stock certificate book is retained in the custody of the corporation. In such case, when a certificate is presented for transfer it is cancelled by the transfer agent and turned over to the corporation in exchange for a new certificate issued in the name of the transferee. This certificate is then certified by the transfer agent and delivered to the owner. When the stock certificate book is kept by the corporation, the transfer agent keeps an independent record of stock certificates issued and surrendered, to assure the regularity of each issue or transfer.

A **registrar** supervises transfers of corporate stock to insure that certificates are properly issued. He maintains records of stock certificates issued and of the surrender and reissue of certificates, with the names of the parties involved in each transfer. The registrar passes upon each certificate at the time it is issued and countersigns evidence of due issuance. The duties of registrar and transfer agent are necessarily distinct, and cannot be performed by a single person or institution.

The work of a transfer agent or registrar, to be effective, must be discharged by persons of the highest character and unquestioned standing. Trust companies and banks are best qualified for these functions. Employment of transfer agents and registrars is generally advisable

when transfers of stock are likely to be numerous. To effect transfers rapidly and accurately, the employment of a qualified transfer agent and registrar, or a transfer agent alone, is advisable. They relieve corporate officials of much detail and responsibility, reduce the possibility of fraud or error in the issuance of stock to a minimum, and afford safety and convenience not otherwise obtainable. Stock exchanges require that stocks listed by them shall be issued through suitable transfer agents and registrars.

Par Value of Corporate Stock

USE OF PAR VALUE.—Capital stock may be assigned a par or fixed value in the certificate of incorporation. This value is printed upon the stock certificate. For many years the customary par value, except for quite speculative ventures, was $100, although $50 was favored by some Pennsylvania corporations. Today, the trend is towards the use of low par value shares.

LEGAL SIGNIFICANCE OF PAR VALUE.—The par value of capital stock purports to represent the **original investment** in cash, property, or services behind each share. This par value, subject to the vicissitudes of business, is regarded as paid in for the protection of creditors, and so is not available for dividends to stockholders. Where stock is sold for cash at less than its par value, stockholders are liable for the deficiency, the stock being **part-paid and assessable.** Where property or services exchanged for stock have been fraudulently overvalued, creditors have in some instances been able to have the stockholders held liable for the deficiency.

Banks and insurance companies under most state laws may issue only stock with par value, and regulatory authorities may require recapitalization or liquidation if the capital becomes impaired. Banks and insurance companies hold the funds of the general public, which is not in position to study the financial position of each institution, as do creditors of ordinary corporations. Hence regulatory authorities seek to protect public creditors by safeguarding the integrity of the capital as a cushion for creditors.

Donated Stock Fiction.—A subterfuge, frequently resorted to before the widespread use of no-par and low-par value stock, for avoiding open violation of the rule against issue of stock below par, was for a stockholder to donate a portion of his holding to the company and for the company to resell these shares, usually to raise working capital. As the **donated shares** were treasury stock, they could be sold at any price, as the par value rule did not apply. The stock was originally issued to the donors at par for property or services presumably at a proper valuation. However, the very fact that they were ready to make the corporation a gratuitous gift of a considerable portion of their holdings was proof that they had secured the stock very cheaply, that the property or services they gave in exchange were greatly overvalued, and that the stock was actually exchanged at considerably less than par.

Such subterfuge is only possible because of the leniency of the courts in placing a valuation on property or services given in payment

of subscriptions to stock. Courts use one of two rules in deciding upon such questions of valuation. In some jurisdictions, the **"true value" rule** is employed. Here the motive, intent, and good faith of directors who take property or services in payment of stock subscriptions are disregarded, and the subscriber to stock who has given such property or services, in order to relieve himself of liability, must show that the property or services were actually worth in dollars and cents the face or par value of the shares. However, even here the court will be disposed to give the promoter the benefit of any doubt. In jurisdictions where the **"good faith" rule** prevails, courts will accept whatever valuation the directors have placed on such property or services, provided the parties to the transaction have acted fairly and in good faith. "In the majority of states, where the 'good faith' rule prevails, the creditors must prove not merely that the valuation was excessive, but also that it was fraudulent. Of course, this is a heavy task." (Bonbright, Col. Law Rev., vol. 24.)

The tendency of state statutes is to make the judgment of directors as to the value of the property, labor, or other services received on stock subscriptions conclusive in the absence of actual fraud. In Ohio, its determination is conclusive in any suit brought to lay aside the valuation:

1. If made by the incorporators by a statement in the articles of association or in the acceptance by them of the subscriptions.
2. If made by the board of directors.
3. If made or approved by the vote of the holders of a majority of the outstanding shares of the class to be issued and all shares junior thereto, regardless of any limitations or restrictions on the voting power of any such classes of shares.
4. If set forth in an agreement of consolidation, or approved as a part of the proceedings to reduce stated capital, or to consolidate, merge or reorganize.
5. If the party bringing suit cannot prove by clear and convincing evidence that the value placed on such property or services was knowingly and intentionally fixed above the fair value.

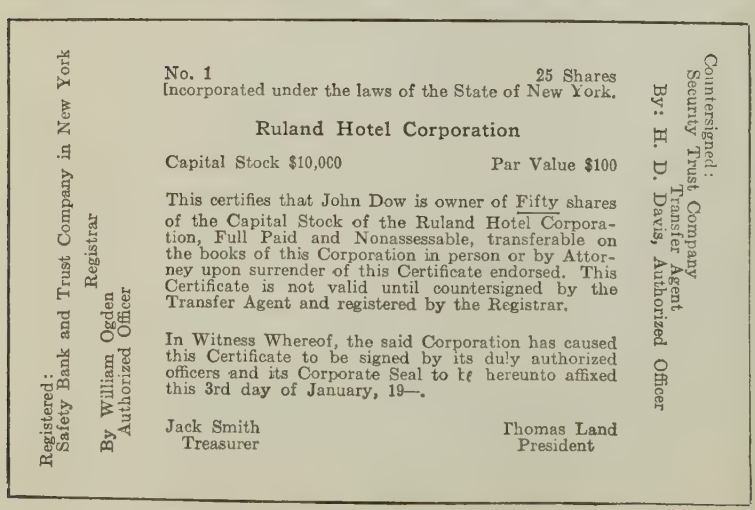
Trouble not infrequently arises with respect to **property or services** taken in payment of stock subscriptions because of failure of the management by formal action to place a valuation on the property or services. The valuation should be made by directors or stockholders and a formal record made of it. Some states specifically require this by statute.

"Full-Paid and Nonassessable."—Certificates of par value capital stock are designated "full-paid and nonassessable," when a consideration at least equal to the par value has been paid for the shares. If the consideration received is less than the par value, but the certificates are nevertheless designated "full-paid and nonassessable," the corporation is estopped from assessing the stockholders for the deficiency. In a few jurisdictions, even creditors may not enforce payment of the unpaid balance, but the federal and most state courts have followed the lead of the Supreme Court in holding that creditors not aware of the failure to pay in the full par value when they lent funds may be presumed to have relied on the par value of the shares as representing the capital of the corporation. They can compel assessment of stockholders in the event of insolvency, provided they can prove that the

stock is in fact partly paid or that property and services received in payment for the shares were fraudulently overvalued. Creditors cannot complain, however, if they extended their loans prior to the issue of the stock and could not therefore be misled by it, or if they had knowledge of the facts about the stock issue when they made their loans. Creditors may waive their rights to enforce payment of the unpaid balance on partly paid stock. Many corporations insert a "no recourse" clause in mortgage indentures for bond issues, by which bondholders surrender the right to seek additional payments on partly paid stock that may be outstanding.

Low Par Value.—The trend in corporate capitalization in recent years has been towards use of low-par value stock. Low-par value shares have frequently been exchanged for stock of a higher par or stated value by corporations desirous of creating a large capital surplus against which to charge asset write-downs or accumulated losses. These reductions in capital are effected with the consent of stockholders. When stock is sold above its par or stated value, it is said to be sold at a premium. Widespread use of low-par value shares has made the sale of stock at a premium quite common.

Many states tax no-par value shares as though they had a $100 par value. A tax saving is realized if low-par, rather than no-par, shares are used. Thus, New York levies an organization tax of "one-twentieth of one percentum upon the amount of the par value of all the shares with a par value which it is authorized to issue, and a tax of five cents on each share without a par value which it is authorized to issue." (New York Tax Law, section 180) If 10,000 shares are sold at $5 a share, the corporation raises $50,000. The capital stock tax would be



No. 1 25 Shares

Incorporated under the laws of the State of New York.

Ruland Hotel Corporation

Capital Stock $10,000 Par Value $100

This certifies that John Dow is owner of Fifty shares of the Capital Stock of the Ruland Hotel Corporation, Full Paid and Nonassessable, transferable on the books of this Corporation in person or by Attorney upon surrender of this Certificate endorsed. This Certificate is not valid until countersigned by the Transfer Agent and registered by the Registrar.

In Witness Whereof, the said Corporation has caused this Certificate to be signed by its duly authorized officers and its Corporate Seal to be hereunto affixed this 3rd day of January, 19—.

Jack Smith
Treasurer

Thomas Land
President

Registered:
Safety Bank and Trust Company in New York
Registrar
By William Ogden
Authorized Officer

Countersigned:
Security Trust Company
Transfer Agent
By: H. D. Davis, Authorized Officer

FIG. 1. Par Value Stock Certificate

$500 with no-par shares, but only $25 if the shares are given at par value of $5.

The federal stock transfer tax also favors the use of low-par shares. The federal tax on stock transfers is 5¢ on each no-par share. If the selling price is $20 or more, the tax is 6¢ a share.

No-Par Value Stock

REASONS FOR ADOPTION.—No-par stock was first authorized in New York in 1912. It may now be issued under the statutes of all states but Nebraska, North Dakota, Oklahoma, and the District of Columbia.

The principal reason for the authorization of no-par shares was the desire to remove restrictions upon the selling price of newly issued shares. Par value stock cannot be sold below the par value without subjecting the purchaser to liability for the deficiency. But no-par value stock can be sold at any price, except where the statutes or charter establish a minimum price. Where the certificate of incorporation provides a **stated** value for no-par stock, the power to change the stated value may be given the board of directors. Thus, stock can be sold at a low price without resort to the fiction of issuing shares to promoters for overvalued property or services, and then having these shares donated back to the corporation so that they could be sold at a low price without subjecting the buyer to liability.

Some states provide that no-par value stock shall be given a stated value. In the absence of such stated value, the stock is **true no-par,** and all the consideration received from its sale is considered capital.

STATED VALUE NO-PAR STOCK.—A stated value for no-par stock sets an amount that is entered on the corporation's books as capital. Any added consideration received from the sale of stock is designated as capital surplus. Some states prescribe a minimum below which the stated value may not be fixed, usually $1 or $5. Sales of stock below its stated value may subject a buyer to liability. A low stated value permits the creation of a large initial capital surplus.

TRUE NO-PAR STOCK.—True no-par value stock has no stated value, but all the consideration received is considered capital. The New York statute prescribes the following methods by which the issue price may be fixed:

1. For such consideration as may be prescribed in the certificate of incorporation.
2. For the fair market value, as to which the judgment of the board of directors is conclusive.
3. For such consideration as from time to time may be fixed by the board of directors when authority is conferred upon them by the certificate of incorporation.
4. For such consideration as may be approved at a special meeting by a majority of shares entitled to vote.

Under the Delaware statute, the board of directors has power to fix the issue price of no-par stock, unless this power is reserved to stockholders in the certificate of incorporation. In the latter event, exercise of the power is by two-thirds vote of stockholders entitled to vote in

the matter—either by consent in writing or at a special meeting of the stockholders.

Some statutes permit the sale of additional stock at any price to anyone, in the discretion of the board of directors, where no restrictions are specified in the corporation's charter. However, courts of equity will protect stockholders against dilution of their equity by the sale of new shares to others much below the prevailing market value.

The courts also will intervene where no-par stock is sold at different prices to different parties at the same time. (Hodgeman v. Atlantic Refining Co., 300 Fed. 590; also Stone v. Young, 206 N. Y. Sup. 95.) The fact that the charter or statute gives the board of directors or majority of shareholders the right to issue no-par shares for such consideration as they deem best will not prevent courts of equity from intervening on an application of existing shareholders to enjoin a dilution of their shares by the issuance of new shares below their real value.

The use of no-par stock is now firmly fixed in American corporate practice. A number of states do not permit the use of no-par stock by monied corporations, such as banks and insurance companies. The statutes of Delaware, however, do not make this distinction. A holding company registered under the Public Utility Holding Company Act of 1935 is barred from selling no-par shares.

NO-PAR STOCK IN THE BALANCE SHEET.—Considerable variation occurs in accounting for no-par stock issues in the balance sheet. The proper method with true no-par shares is to capitalize the entire consideration received from the sale of stock. If, however, there is a division of the consideration between the capital stock and the surplus account, as might not be improper under certain circumstances, that particular surplus account should be designated **Capital Surplus, Paid-in Surplus,** or by some other designation that will distinguish it from **earned surplus.**

In the case of every class of stock without par value, the number of shares issued as well as the total number authorized should be shown in the balance sheet. This applies as well to par value stock issues, but the par value of issued stock permits a reader to determine the number of shares. It is frequently the practice, however, to indicate the par value only when it is less than $100, particularly in the larger companies whose issues are dealt in on the exchanges. If the par value is not mentioned, it is understood to be $100.

The following examples illustrate actual balance sheet treatments of capital stock and surplus in the case of no-par stock:

CASE 1

6% cumulative preferred stock ($50 par value)	$30,333,900
Common stock (6,497,627 no-par shares)	64,976,270
Capital surplus	31,197,532
Undivided profits	50,212,546

1. The common stock of this company originally had a par value of $10. When exchanged for no-par stock, the shares were assigned a

stated value of the same amount, which was retained in subsequent issues of the stock.

2. A considerable capital surplus has been accumulated from sales of common stock above the stated value, and of the preferred above the par value.

3. Earned surplus is designated "Undivided profits."

CASE 2

Common stock (560,000 no-par shares)	$7,000,000
Surplus	3,651,503

1. Each share of this company represents $12.50 of the capital stock.

2. The surplus may or may not contain a portion of the stockholders' contributions. If it does, good practice requires that that portion be segregated in a separate account and properly labeled.

CASE 3

Preferred stock ($100 par value)	$3,361,300
Common stock (549,546 no-par shares)	9,736,998
Capital surplus	1,548,945
Current surplus	3,999,206

1. The no-par common shares here have apparently no stated value. The amount of capital stock and the number of shares have been fixed more or less independently of each other.

2. If the capital surplus is paid-in surplus, then the capital stock represents only a portion of the consideration received for the stock. However, it is by far the greater portion.

3. Current surplus is apparently earned surplus and is properly segregated from capital surplus.

CASE 4

Capital stock (203,000 no-par shares)	$3,460,328
Capital surplus	1,726,594
Earned surplus	272,491

1. The fact that the amount of the capital stock is not a multiple of the number of shares would indicate that the no-par shares are of the actual or no stated value type and that the amount of the capital stock and number of shares were fixed somewhat independently of each other.

2. If the capital surplus is a portion of the subscription payments, it represents a rather high proportion of the total amount.

OBJECTIONABLE METHODS OF PRESENTING NO-PAR STOCKS IN BALANCE SHEET.—The following methods of setting forth no-par capital stock in the balance sheet are occasionally encountered, though they do not represent approved practice.

1. Failure to differentiate paid-in surplus from earned surplus, and the resulting inability of readers of the balance sheets to know whether dividends are being paid from accumulated earnings or from the previous contributions of stockholders.

2. Fixing a stated value for the shares which is only a small fraction of the amount received per share. The result is that the great bulk of the stockholders' contributions are represented by capital surplus

instead of capital stock. In making this improper segregation, the shares are frequently assigned a stated value of a very small sum, even a fraction of a dollar, while the price at which the shares are marketed is set considerably higher. There is a tendency toward the greater spread of this abuse, companies taking advantage of very low assigned values to segregate most of the capital contributions of shareholders in the capital surplus account or a general surplus account. The same abuse, however, is practiced in connection with low-par value shares.

3. Lumping capital stock and surplus together in one figure in the case of shares without stated value so that the reader is unable to learn what sum represents the stockholders' permanent investment and what sum represents earnings.

4. Where there are two classes of stock—preferred and common—both of no-par value, their amounts may be merged together, and only the number of shares of each class outstanding is shown. There is nothing to indicate whether the preferred shares are carried at their paid-in value or their value in liquidation.

5. In a few instances, no-par stocks have been represented at market value in the balance sheet. This is wholly indefensible.

ADVANTAGES OF NO-PAR STOCK.—Advantages claimed for no-par stock are:

1. Truthful representation of ownership. Regardless of the par value assigned to a share of stock, it represents fractional ownership in the corporation. A dollar par value may confuse uninformed purchasers, who may believe that because a share has a certain par value it is worth that amount. The buyer of no-par shares acquires only a proportionate share in the assets and earning power of a corporation.

2. Selling price may be adjusted to prevailing market quotations. Corporations may seek to sell stock when prevailing quotations are lower than the par value of the shares. Questionable practices were often used to create "full-paid" par value stock which could then be sold below par. With no-par stock this procedure is unnecessary, for it can ordinarily be sold at a price fixed by the board of directors.

3. Number of shares may be increased easily. If it appears desirable to increase the number of shares to effect wider distribution or prepare for new financing, it may be accomplished by a simple split-up of no-par shares. With par value stock, it would be necessary to reduce the par value or to declare a stock dividend. All that is necessary to split up no-par shares is the authority to issue more stock. If there is sufficient unissued stock available, the directors have the power to issue it; if not, an amendment of the certificate of incorporation is necessary.

DISADVANTAGES OF NO-PAR STOCK.—The disadvantages of no-par stock are:

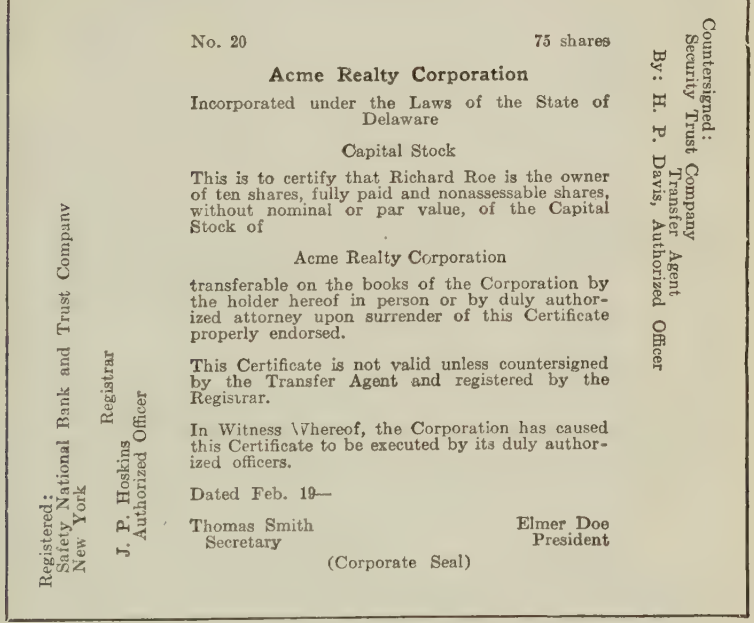
1. The courts insist that the capital of a corporation with no-par stock must be kept intact, which raises a number of problems as to how the amount of such capital shall be determined, and how it can be reduced when necessary.

2. Organization taxes on no-par stock sold below $100 are higher than on low-par stock in some states.

3. Stock transfer taxes may be higher on no-par stock which is a disadvantage to the stockholder.

4. There is danger of impairment of the equity of old stockholders through the issue of no-par value stock for overvalued property, if the preemptive right to subscribe to new issues has been waived.

Generally speaking, no-par stock has disappointed the expectations of those who sponsored its introduction a generation or more ago. It has given rise to legal and accounting complications and difficulties that were not then contemplated. Hence, the trend has been away



No. 20 75 shares

Acme Realty Corporation

Incorporated under the Laws of the State of Delaware

Capital Stock

This is to certify that Richard Roe is the owner of ten shares, fully paid and nonassessable shares, without nominal or par value, of the Capital Stock of

Acme Realty Corporation

transferable on the books of the Corporation by the holder hereof in person or by duly authorized attorney upon surrender of this Certificate properly endorsed.

This Certificate is not valid unless countersigned by the Transfer Agent and registered by the Registrar.

In Witness Whereof, the Corporation has caused this Certificate to be executed by its duly authorized officers.

Dated Feb. 19—

Thomas Smith, Secretary — Elmer Doe, President

(Corporate Seal)

Countersigned:
Security Trust Company
Transfer Agent
By: H. P. Davis, Authorized Officer

Registered:
Safety National Bank and Trust Company
New York
Registrar
J. P. Hoskins
Authorized Officer

FIG. 2. No-Par Value Stock Certificate

from its use, and towards substitution of low-par stock, which is simpler and more certain in character. But experience with no-par stock did break down popular attachment to the $100 par value as a standard, and so paved the way for public acceptance of par values of $10, $5, $1, and in certain cases as low as 1¢.

Stock Terms and Definitions

AUTHORIZED STOCK.—The authorized stock of a corporation is specified in its certificate of incorporation. It is the maximum number of shares that may be issued. Should the corporation desire to increase or decrease the number of shares or change the par value, it will be

necessary to submit the question to the stockholders at a meeting and, if approval is obtained, to file an amendment to the certificate of incorporation in the form and manner provided by the statute. Where preferred stock is authorized or any special restrictions or privileges apply to a class of stock, this is set forth in the certificate of incorporation, and these too may be changed thereafter only by formal amendment of the charter.

RESERVATION OF AUTHORIZED STOCK.—The authorized capital stock may or may not be issued in its entirety immediately upon the organization of the corporation, depending upon the company's policy. Particularly if it sees opportunities for future expansion by new acquisitions or otherwise, it will fix the authorized stock sufficiently high to have unissued stock constantly on hand.

Where a company enters into contracts calling for the issue of stock at some time in the future, it will not only see to it that it has a sufficient amount of unissued stock for the purpose, but it may take the further step of reserving the required amount on its books. Some statutes—that of California, for example—compel a corporation to increase the authorized stock sufficiently when stock purchase warrants and convertible securities are issued. The Maryland statute provides, however, that authorization of convertible securities also includes the authorization of the stock into which they are convertible.

Some of the reasons persuading or compelling a company to have a supply of authorized but unissued stock on hand are:

1. For new financing, whether a sale of additional shares to stockholders through issuance of rights, a sale to bankers, an exchange of shares for property or services, an exchange for securities in other corporations through merger, etc., or in payment of a debt.
2. To declare stock dividends—recurring or occasional.
3. For issuance to the management, promoters, bankers, or others to whom options to buy stock have been given by way of compensation given on a contingent basis. Such options will not ordinarily be exercised until the market value of the outstanding shares rises above this option price, but the corporation must stand ready to deliver shares to the option holder without delay upon application.
4. For issuance in exchange for bonds or preferred stock which are convertible into common stock. If the bonds are convertible into preferred stock, then a sufficient authorized amount of that issue must be held in reserve to meet all conversion requirements.
5. If stock purchase warrants are outstanding, carrying the privilege of purchasing the stock at a given price. A sufficient amount of authorized stock must be held available to meet the entire requirements of such options.
6. Shares may be reserved against an employee's stock subscription plan or against subscriptions by customers.
7. Shares may be reserved against scrip dividends convertible into the stock.

CHANGES OF AUTHORIZED CAPITAL STOCK.—The authorized stock, fixed as it is by the charter, cannot be changed, whether in amount or in the classification of the shares, even with the consent of all the stockholders unless the power to change it has been expressly conferred upon corporations by statute. (Fletcher, Law of Private Corporations.) In other words, a corporation has no implied authority to increase or diminish its capital stock. All states, however, by statute

have conferred the right upon corporations to change their original capital stock and it is exercised generally by action of the stockholders. A change in the authorized stock necessitates amending the charter, and while the general requirements of the various states are similar, the details vary and the statutes must be consulted in each case to determine just what is required. Usually the consent of a majority or two-thirds of the voting shares is necessary.

The changes in authorized capital stock most commonly made are:

1. Increase or decrease of the amount of authorized capital stock.
2. Increase or decrease of the number of shares.
3. Increase or decrease of the par value of shares with or without a change in the amount of authorized capital stock. If the authorized capital stock is not changed, a change in the par value necessitates the reverse change in the number of shares.
4. Change of par value shares to shares without par value or reverse.
5. Creation of one or more classes with specified preferences.
6. Change of common stock to preferred stock, or of preferred stock to common stock.
7. Change of preferences of existing preferred stock.

ISSUED STOCK.—When a corporation sells its stock, the shares sold are termed issued stock. As long as it remains in the hands of stockholders it is known as **outstanding** stock, losing that status only when reacquired by the corporation.

FULL PAID STOCK.—Stock is full paid when the corporation has received payment up to the full par value, or up to the amount established as the selling price of no-par shares. Payment may be in cash, in real, personal, or intangible property, and in services (labor done). If property and services received for stock are overvalued, **watered** stock results. Since the passage of the Federal Securities Act, which requires the filing of a prospectus showing among other information the details of such transactions, it has become increasingly difficult for promoters, incorporators, and directors to issue excessive amounts of stock for property and services.

PART-PAID STOCK.—Part-paid stock, as the name indicates, is stock which has been issued for less than the par value or the agreed subscription price. The practice is not common in American financial practice, but it is quite common in England and other countries. Stock sold in this country on the instalment plan is usually not issued until the final instalment has been paid. Often stock offered on the instalment plan was previously issued fully paid and was subsequently reacquired by the corporation for the express purpose of making it available to employees and small investors through instalment purchase agreements. A public sale of stock which is only part paid, with the attendant danger of liability to creditors or further call by the board of directors, is normally impracticable. Practice dictates that stock sold to the public be "full paid and nonassessable." Even where private rather than public sale is contemplated, the possibility of issuing stock which is not fully paid is seldom considered.

TREASURY STOCK.—Treasury stock is stock which has been issued as full paid and nonassessable and has come back into the possession of the issuing company by purchase, gift or otherwise, and is kept

alive in the corporation's treasury. It is issued but no longer outstanding stock. Unissued stock, whether or not reserved for a particular purpose, is not treasury stock. The term "treasury stock" is properly used to designate only the shares of its own stock which a company has acquired and which are held subject to disposal by its directors or its stockholders. It is not an asset of the company and should not be included in the current assets. Nor should it be lumped with the company's security investments in other concerns. It should be set out separately on the balance sheet, preferably as a deduction from outstanding stock if its reissue within the near future is not contemplated.

Stock once issued for its full par value or otherwise fully paid has a different status from the same stock before issue. It is full-paid stock, and may be resold at any price regardless of par value or previous issue price; or it may be given away as a bonus with preferred stock or bonds, or sold to employees, or be otherwise issued without involving the recipient in liability to the corporation or its creditors and without violating. the preemptive right of stockholders. So long as the stock is held by the corporation in its treasury, it is inert and can neither vote nor participate in dividends.

Methods of Acquisition.—There are three common methods by which treasury stock may be acquired:

1. In payment of a debt due the company. This method of acquisition of treasury stock usually arises by accident. Legal action on the part of the corporation to collect a debt may result in a levy upon personal property of the debtor, which may consist in whole or part of shares of stock of the corporation. Or the corporation may have accepted its shares as collateral for a loan and be compelled to retain the collateral upon default. National banks may not accept their own stock as collateral for loans, and if some of the bank's shares come into its possession through legal actions against debtors they must be disposed of within 6 months.

2. By donation. A corporation's stock may be donated to the corporation for a number of reasons. In the days before no-par stock had been legalized and a low par value was considered inexpedient, promoters were liberally paid for property and expenses in stock and immediately donated some of this stock back to the corporation. As it had been issued as fully paid stock, it could then be sold at a price below the $100 par value. Stock may be donated to the corporation in the same manner to facilitate the sale of preferred stock through giving common with each preferred share as a bonus. Large stockholders may donate stock in a time of stress to help the corporation raise cash. They may donate shares to be used as a bonus for officers or employees. A large stockholder may donate stock to eliminate a profit and loss deficit. Julius Rosenwald, a large stockholder and chairman of the board of Sears, Roebuck & Co., in 1921 donated 50,000 shares of common stock to his company to eliminate a deficit caused by the precipitate decline in inventory values during the fall and winter of 1920–1921. The same method was used in a number of smaller companies in the early 30's for the same reason.

3. By purchase. A corporation may in most states purchase its own stock, provided that in so doing it does not impair capital.

Some reasons for purchase by a corporation of its own shares are:

1. To buy shares from a stockholder in a closed corporation who is desirous of disposing of his interest, for which there is no market.
2. To declare a dividend in treasury stock. Usually the corporation is in possession of some of the needed stock and desires additional shares to make an even distribution.
3. To prepare for the retirement of an issue of stock. This is quite common where an issue of high dividend preferred stock is outstanding and the corporation wishes to eliminate it.
4. To eliminate a deficit by purchasing stock below its par or stated value. It is usually not legal for a corporation which has a deficit to purchase its own stock, but stock may be bought in anticipation of a later write-down of asset values which would result in a deficit.

Voting Power

VOTING BY STOCKHOLDERS.—The right to vote is a fundamental right of the stockholder. Unless restricted by the charter for certain classes of stock, this right cannot be questioned.

At common law, the right to vote was given the individual stockholder, and not his stock. Each stockholder had one vote regardless of the number of shares owned. This is still the rule in England, unless the corporate "regulations" (by-laws) provide otherwise. In the United States, the statutes of the states give to each stockholder as many votes as he has shares of stock. In fact, this practice is so universal that the right can be said to exist by usage, so that even in the absence of statutory provision it has been enforced by the courts on that ground. (Western Cottage Corp., etc. v. Burrows, 144 Ill. App. 350, 370.)

Corporations owning stock in other corporations may vote such shares through authorized representatives, as can natural persons. However, it is well established in law that a corporation may not in any manner vote its own stock which it may have acquired and have in its treasury.

The by-laws usually authorize **closing of the transfer books** for some period prior to the meeting, so that ownership of the shares and the names of those entitled to vote may be determined. The same purpose is served by a by-law permitting the secretary to limit the right to vote to stockholders of record at the close of business on some day prior to the meeting. This is the usual practice of corporations whose stock frequently changes ownership, common among large corporations.

A majority vote is necessary to elect a director or pass a resolution where statutory voting is used. A mere plurality of the votes would not be sufficient to elect a director. For example, at a stockholders' meeting with 300 voting shares present, each shareholder favoring a different man for a vacant directorship, the following votes were cast: First candidate 150, the second and third candidates 50. No director is elected, for while the first candidate has a plurality, he lacks one vote of having a majority. Each director is balloted for separately, hence ownership of a majority of the shares will elect all of the directors.

Cumulative Voting.—Cumulative voting is designed to enable a minority of the stockholders, who under statutory voting would not be able to elect a director, to gain representation on the board. Under this plan, permitted in a number of states, each stockholder is entitled to as many votes as he has shares of stock, multiplied by the number of directors to be elected. He can then concentrate his votes on one

candidate or upon as few as he desires, for in cumulative voting a plurality and not a majority of votes is necessary for election.

If a corporation has 300 shares of voting stock represented at the stockholders' meeting, there are five directors to be elected and the minority owns 148 shares, it would be entitled to 740 votes. If the minority wished to elect two candidates, it would cast 370 votes for each. The majority interest owning 152 shares is entitled to 760 votes, so that if it spreads these votes over five candidates each would receive 152 votes, and over four candidates 190 votes. Thus, it is useless for the majority to spread its votes over more than three candidates who would be unopposed, as the minority would have no votes left after having used its voting power to assure the election of two directors.

To determine how to vote shares with cumulative voting for the election of directors to best advantage, the following formula is used:

$$\text{Minimum number of shares required} = \frac{\text{Total number of shares outstanding} \times \text{Number of directors desired}}{\text{Total number of directors to be elected} + 1} + 1$$

To elect one director in the case cited where the corporation has 300 shares outstanding, a minority would need $\frac{300 \times 1}{6}$, or 51 shares, with 255 votes, all to be cast for one director. Thus, ownership of 17% of the voting stock would be sufficient to insure representation on the board of directors for the minority.

CONTINGENT VOTING.—Ordinary voting privileges are often denied preferred stockholders. In exchange for the preferential right to a stipulated rate of dividend before any dividend may be paid on the common stock, the purchaser of preferred stock surrenders his right to vote. However, there is often a provision that, in the event no dividends are paid for a specified period, the preferred stock shall have voting power. Some charters go further and give the preferred stockholders exclusive or majority voting rights until dividend arrears have been paid up.

The number of dividend payments which must be passed before preferred stockholders receive the voting privilege varies from one corporation to another. Failure to pay a full year's dividend is a common stipulation.

Statutes or court decisions in several states provide that preferred stockholders, even though nonvoting on ordinary matters, have the right to vote on questions affecting the status of the corporation's property as a whole. Such questions as mortgaging or selling the corporation's property or franchise, guaranteeing bonds of another corporation, voluntary dissolution, change of name and modification of the priorities of the various classes of stock are in this category. To deny nonvoting stockholders the right to vote in the above contingencies, it must be specifically excluded by charter.

PROXIES.—Under the common law, each stockholder had to be present at the meeting. He could not delegate to another the right to attend and cast his vote. The practice of giving a **power of attorney** to another to attend the stockholders' meeting and vote the shares has

become so common, however, that it is now accepted usage even where not specifically authorized by statute.

A proxy is a power of attorney to vote corporate stock. It is revocable like any other agency, therefore, unless coupled with an interest, such as proxies given to one who holds the stock as security for a loan. Personal attendance by a stockholder at a meeting cancels any proxy he may have given. A proxy with a later date than one previously given automatically cancels the first proxy.

Proxies usually authorize the holder not only to vote for directors, but also to vote on other questions which may come up at the meeting.

A proxy and an accompanying proxy statement are shown in Figs. 3a and 3b.

D. A. Schulte, Inc.—Proxy of Stockholders

KNOW ALL MEN BY THESE PRESENTS that the undersigned stockholder of D. A. SCHULTE, INC., hereby constitutes and appoints J. DONOVAN PHEIFER, HENRY GALE and GEORGE J. WISE or any of them, the true and lawful proxies of the undersigned, for and in the name, place and stead of the undersigned, to vote at the separate Annual Meetings of the Preferred and of the Common Stockholders of the said Company to be held on Wednesday, February 13, 1946, or at any adjournment or adjournments thereof, for (a) the election of directors, and (b) the transaction of any business which may legally come before the said meetings, or any adjournment or adjournments thereof, according to the number of votes which the undersigned would be entitled to cast if then personally present, and the undersigned hereby ratifies all that said attorneys and proxies, or any of them, or the substitute of any of them may lawfully do in the premises.

The undersigned acknowledges receipt of a copy of the Notice of Annual Meetings and Proxy Statement, all dated January 23, 1946.

IN WITNESS WHEREOF, the undersigned has signed and sealed this proxy the ..... day of ....., 1946.

.....SEAL

SIGN EXACTLY AS NAME APPEARS BELOW

Number of Shares of
Common .....
Preferred .....

FIG. 3a. Proxy of Stockholders for Voting at Meetings

D. A. SCHULTE, Inc.

Proxy Statement

The proxy which is requested in the Notice of the Annual Meetings of Stockholders, which is transmitted herewith, is revocable by the person giving it at any time before the action authorized is taken. Such proxy is being solicited by and on behalf of the management of D. A. Schulte, Inc. There are nine directors to be elected at these Annual Meetings. By reason of the payment on May 1, 1945 of the balance of dividend arrears with respect to the Preferred Stock, resulting in the removal of the dividend default with respect to the Preferred Stock theretofore existing (all as more particularly defined and provided for in Certificate of Incorporation, as amended), six of such directors are to be elected by the holders of shares of the Common Stock voting separately as a class and the remaining three members of such Board are to be elected by the holders of shares of Preferred Stock voting separately as a class. It is the intention of the persons named in the proxy enclosed herewith to vote the proxies received from the holders of Preferred Stock in favor of the election of the three persons hereinafter named as "Nominees for election by the Preferred Stockholders", and to vote the proxies received from the holders of Common Stock in favor of the election of the six persons hereinafter named as "Nominees for election by the Common Stockholders".

Nominees

The nine persons hereinafter designated as the nominees for election by the holders of Preferred and Common Stock are all members of the present Board of Directors and constitute the entire Board. All of said members of the Board of Directors were elected by the stockholders at the last Annual Meetings of Stockholders of this Company held on February 14, 1945.

Outstanding Shares

As at the close of business on December 31, 1945 there were outstanding 24,489 shares of the Preferred Stock of this Company and 1,333,862 shares of the Common Stock of this Company; each share of each class of stock being entitled to vote cumulatively for the election of the Directors to be elected by that class of stock.

Directors and Remuneration

The Directors of the Company, the years in which they respectively became Directors, their principal occupations, the securities of the Company owned by them, and the remuneration received by them during the fiscal year ended October 31, 1945 are as follows: [see table on following page]

Fig. 3b. Proxy Statement (first page)

Name	First Became Director	Principal Occupation and Company with which associated	Securities beneficially owned directly or indirectly as of December 15, 1945[a] Preferred	Common	Remuneration during fiscal year ended Oct. 31, 1945
		Nominees for election by the Preferred Stockholders			
Louis Goldvogel	1943[b]	Senior Vice-President and Director of D. A. Schulte, Inc.	None	None	$30,000.00
Clyde B. Santee	1941	Attorney at law, member of firm of Gale, Bernays, Falk, Eisner & Nathan	None	400	None[e]
David A. Schulte	1942[d]	President and Director of D. A. Schulte, Inc., and Dunhill International, Inc. and Director and Chairman of the Board of Directors of Park & Tilford, Inc.	16,331	105,600	25,000.00
		Nominees for election by the Common Stockholders			
Harris Berlack	1940	Attorney at law	None	1,100	5,000.00[f]
George R. Coughlan	1940	Attorney at law, member of firm of Coughlan & Russell	None	None	500.00[c]
Hugh W. Long	1942	President of New York Stocks, Inc. and President of Manhattan Bond Fund, Inc.	None	500	350.00[c]
William T. Posey	1942	President of Posey Bros. Realty Co. and Chairman of Board of Directors of United States Realty & Investment Co.	None	None	500.00[c]
Lawrence Valenstein	1942	President and Treasurer of The Grey Advertising Agency, Inc.	None	None	450.00[c]
George J. Wise	1940	Vice-President of Nedick Stores, Inc. and Chairman of the Board of Directors of D. A. Schulte, Inc.	None	550	5,000.00[f]

(a) The foregoing statement as to the beneficial ownership of the shares of the Company's capital stock by the several nominees and Directors is as to each based upon information furnished by him. The Company has no direct means of verifying the correctness thereof.

(b) Mr. Louis Goldvogel was formerly a Director of this Company prior to its reorganization in November 1940 and served as such Director from 1916 until November 29, 1940, when the Plan of Reorganization was consummated.

(c) Received as fees for attendance at Directors' meetings.

(d) Mr. David A. Schulte was formerly a Director of this Company before its reorganization and served as such from 1916 until 1934, when he resigned.

(e) The law firm of Ernst, Gale, Bernays, Falk & Eisner (of which Mr. Santee was a member), counsel for the Company received $50,000.00 for their legal services to the Company during this fiscal year.

(f) Received as Executive Committee fees.

FIG. 3c. Proxy Statement (continued)

Remuneration of Officers and Other Persons (Who Are Not Directors or Nominees) Receiving Over $20,000.00

During the Company's fiscal year ended October 31, 1945 the remuneration received by each Director, each nominee and each officer (not a Director) totalling more than $20,000.00 was as follows, except as above noted:

Name	*Capacity*	*Amount*
Stanley Roth	Vice-President	$30,000.00
Irving I. Rosenbaum	Vice-President	25,000.00
*Kenneth T. Barnaby	Vice-President	20,500.00
**Ernst, Gale, Bernays, Falk & Eisner	Counsel	50,000.00

*During this fiscal year, this officer received $1500. more than his remuneration during the previous fiscal year.

**During this fiscal year, this firm received $10,000. more than its remuneration during the previous fiscal year.

Total Remuneration of All Officers and Directors

The amount of remuneration including that listed above paid during the fiscal year ended October 31, 1945 by the Company and by its subsidiaries, directly or indirectly, to all officers and directors of this Company considered as a group was $182,229.17 in addition to the above mentioned amount paid to the firm of Ernst, Gale, Bernays, Falk & Eisner for legal services.

Owners of More Than 10% of Any Class of Stock

As of December 31, 1945 Mr. David A. Schulte was the owner and holder, beneficially or otherwise, of 16,331 shares of the Preferred Stock of the Company which is approximately 66% of the outstanding and issued Preferred Stock of the Company and was the owner and holder, beneficially or otherwise, of 105,600 shares of the Common Stock of the Company which is approximately 8% of the outstanding and issued Common Stock of the Company.

Expenses of Solicitation of Proxies

No compensation is being paid by the Company for the solicitation of proxies and no expenses are being incurred in connection therewith, except the cost of preparing, printing, handling and mailing the material sent to you herewith, which cost will be borne by the Company. In addition to the use of the mails, proxies may be solicited personally by Directors, officers and regular employees of the Company, the additional cost of which will not exceed $100; and the Corporation may, upon request, reimburse persons holding stock in their names or in the names of their nominees for their expenses in sending proxies and accompanying material to their principals.

Interest of Directors and Nominees in Corporate Transactions

Mr. David A. Schulte is the President and a Director of Dunhill International, Inc. (the parent company of Alfred Dunhill of London, Inc.) and a Director and Chairman of the Board of Directors of Park & Tilford, Inc. (the parent company of Park & Tilford Import Corporation) and the owner of more than 10% of the issued and outstanding preferred and common stock of Schulte Real Estate Company, Inc. Mr. Clyde B. Santee is also a director of Schulte Real Estate Company, Inc.

Fig. 3d. Proxy Statement (continued)

During said fiscal year ended October 31, 1945:—

1. This Company purchased merchandise from Alfred Dunhill of London, Inc. at prices aggregating $184,346.99.
2. This Company sold merchandise to Alfred Dunhill of London, Inc. at prices aggregating $17,837.04. The cost of these articles to this Company was $17,661.06.
3. This Company received $42,000.00 from Schulte Real Estate Company, Inc. for the management and operation of the approximately 55 Schulte Real Estate Company, Inc. properties.
4. This Company received $1,821.10 (computed on the basis of 3% of rents received) from David A. Schulte for the management and operation of 7 parcels of his real estate.
5. This Company purchased merchandise from Park & Tilford Import Corporation at prices aggregating $8,042.39.

ANNUAL REPORT

The Annual Report of the Company including financial statements was mailed to stockholders on January 9, 1946.

OTHER BUSINESS

The management does not intend and is not aware that any persons intend to present for action at the Meetings any matters other than the election of Directors; however, stockholders have the right to bring before the Meetings for consideration any matters which they desire and, if other matters properly come before the Meetings, it is the intention of the persons named in the enclosed proxy to vote the same in accordance with their judgment on such matters.

VOTING OF PROXIES

It is intended that votes pursuant to the enclosed proxy will be cast for the election of the nominees above set forth, each of whom will hold office until the next Annual Meetings of Stockholders and until his successor shall have been elected and shall qualify. However, the persons designated as proxies reserve full discretion to vote for other persons in the event that any of such nominees are unable to serve, but it is not now contemplated that this will be necessary.
Dated, New York, January 23, 1946.

By Order of the Board of Directors,
J. DONOVAN PHEIFER, *Secretary.*

FIG. 3e. Proxy Statement (continued)

S.E.C. Proxy Regulations.—The Securities and Exchange Commission, acting under section 14 of the Securities Act of 1934, has issued its Regulation X–14, Rules Relating to the Solicitation of Proxies which requires the following data to be provided holders of stock registered on national security exchanges, when they are asked for proxies to be voted at stockholders' meetings:

Item 1. State whether or not the person giving the proxy has the power to revoke it. If it is asserted that the right of revocation before the proxy is exercised is limited, outline the limitations and state the basis for such assertion.

Item 2. Outline briefly the rights of appraisal or similar rights of dissenters with respect to any matter to be acted upon and indicate any statutory procedure required to be followed by dissenting security holders in order to perfect such rights. Where such rights may be exercised only within a limited time after the date of the adoption of a proposal, the filing of a charter amendment or other similar act, state whether the person solicited will be notified of such date.

Item 3. (*a*) If the solicitation is made on behalf of the management of the issuer, so state. Give the name of any director of the issuer who has informed the management in writing that he intends to oppose any action intended to be taken by the management and indicate the action which he intends to oppose.

(*b*) If the solicitation is made otherwise than on behalf of the management of the issuer, so state and give the names of the persons on whose behalf it is made.

(*c*) State the names of the persons by whom the cost of the solicitation has been or will be borne, directly or indirectly.

(*d*) If the solicitation is made otherwise than by use of the mails, state the methods used. If the solicitation is made by specially engaged employees of the issuer or other paid solicitors, state (1) the material features of any contract or arrangement for such solicitation, (2) the cost or anticipated cost thereof, and (3) the approximate number of specially engaged employees of the issuer or employees of any other person (naming such other person) who will solicit proxies.

Item 4. Describe briefly any substantial interest, direct or indirect, (by security holdings or otherwise) of each of the following persons in any matter to be acted upon, other than elections to office:

(*a*) If the solicitation is made on behalf of the management, each person who has been a director or officer of the issuer at any time since the beginning of the last fiscal year.

(*b*) If the solicitation is made otherwise than on behalf of the management, each person on whose behalf the solicitation is made.

(*c*) Each nominee for election as a director of the issuer.

(*d*) Each associate of the foregoing persons.

Item 5. (*a*) State as to each class of voting securities of the issuer entitled to be voted at the meeting, the number of shares outstanding and the number of votes to which each class is entitled.

(*b*) Give the date as of which the record of security holders entitled to vote at the meeting will be determined. If the right to vote is not limited to security holders of record on that date, indicate the conditions under which other security holders may be entitled to vote.

(*c*) If action is to be taken with respect to the election of directors and if the persons solicited have cumulative voting rights, make a statement that they have such rights and state briefly the conditions precedent to the exercise thereof.

(*d*) If to the knowledge of the persons on whose behalf the solicitation is made, any person owns of record or beneficially more than 10 per cent of the outstanding voting securities of the issuer, name such person, state the approximate amount of such securities owned of record but not owned beneficially and the approximate amount owned beneficially by such person and the percentage of outstanding voting securities represented by the amount of securities so owned in each such manner.

Item 6. (*a*) If action is to be taken with respect to the election of directors, name the persons nominated for election as directors and the term of office for which they are candidates.

(*b*) If any such nominee is proposed to be elected pursuant to any ar-

rangement or understanding between the nominee and any other person or persons, except the directors and officers of the issuer acting solely in that capacity, name such other person or persons and describe briefly such arrangement or understanding.

(*c*) Furnish, in tabular form to the extent practicable, the following information with respect to each person nominated for election as a director:

(1) State the principal occupation or employment of such nominee and the name and principal business of any corporation or other organization in which such employment is carried on.
(2) If the nominee is or has previously been a director of the issuer, state the period or periods during which he has served as such.
(3) State, as of the most recent practicable date, the approximate amount of each class of securities of the issuer beneficially owned, directly or indirectly, by such nominee. If the nominee is not the beneficial owner of any securities of the issuer, make a statement to that effect.
(4) If more than 10 per cent of any class of securities of the issuer are beneficially owned by such nominee and his associates, state the approximate amount of each class of such securities beneficially owned by such associates naming each associate whose holdings are substantial.

(*d*) Describe briefly the business experience of such nominee during the last five years, unless such nominee is now a director and was elected to his present term of office by a vote of security holders at a meeting for which proxies were solicited under Regulation X-14.

Item 7. Furnish the information called for by this item if action is to be taken with respect to (i) the election of directors, (ii) any bonus, profit-sharing, or other remuneration plan in which any director, nominee for election as a director, or officer of the issuer, will participate, (iii) any pension or retirement plan in which any such person will participate, or (iv) the granting or extension to any such person of any options, warrants or rights to purchase securities of the issuer or any subsidiary, other than warrants or rights issued or to be issued to security holders, as such, on a pro rata basis. If the solicitation is made on behalf of the management of the issuer, the entire item is to be answered. In the case of solicitations on behalf of persons other than the management, the information required by paragraph (*a*) may be omitted, and the information required by the remaining paragraphs need be furnished only as to nominees for election as directors and as to their associates. The information shall be furnished in tabular form insofar as practicable and on an accrual basis if practicable.

(*a*) Furnish the following information, in substantially the tabular form indicated, as to the aggregate remuneration directly or indirectly paid or set aside by the issuer and its subsidiaries to, or for the benefit of, the following persons for services in all capacities while acting as directors or officers of the issuer during its last fiscal year:

(1) Each person who was a director of the issuer at any time during such fiscal year and whose aggregate remuneration, exclusive of pension, retirement and similar payments, exceeded $25,000.
(2) Each person who was one of the three highest-paid officers of the issuer during such fiscal year and whose aggregate remuneration, exclusive of pension, retirement and similar payments, exceeded $25,000.
(3) All persons, as a group, who were directors or officers of the issuer at any time during such fiscal year.

(1) Name of individual or identity of group	(2) Capacities in which remuneration was received	(3) Fees, salaries and commissions	(4) Bonuses and shares in profits	(5) Pension, retirement and similar payments

(*b*) State the annual benefits estimated to be payable in the event of retirement at normal retirement date to each person named in answer to paragraph (*a*) pursuant to any pension or retirement plan.

(*c*) Describe all transactions since the beginning of the last fiscal year of the issuer in which any person who was a director or officer of the issuer at any time during such period, or who is a nominee for election as a director, received remuneration, directly or indirectly, from the issuer and its subsidiaries in the form of securities, options, warrants, rights or other property, or through the exercise or disposition thereof. As to options, warrants or rights granted or extended, give (1) the title and amount of securities called for; (2) the prices, expiration dates and other material provisions; (3) the consideration received for the granting thereof, and (4) the market value of the securities called for on the granting or extension date. As to options, warrants or rights exercised, state (1) the title and amount of securities purchased; (2) the purchase price, and (3) the market value of the securities purchased on the date of purchase.

(*d*) State as to each of the following persons who was indebted to the issuer or its subsidiaries at any time since the beginning of the last fiscal year of the issuer, (1) the largest aggregate amount of indebtedness outstanding at any time during such period, (2) the nature of the indebtedness, (3) the amount thereof outstanding as of the latest practicable date, and (4) the rate of interest paid or charged thereon: (i) each person who has been a director or officer of the issuer at any time during such period, (ii) each nominee for election as a director, and (iii) each associate of any such director, officer or nominee.

(*e*) Describe briefly any material interest, direct or indirect, of any of the following persons in any significant transactions since the beginning of the last fiscal year of the issuer, or in any significant proposed transactions, to which the issuer or any subsidiary and any one or more of such persons were or are to be parties: (1) any person who has been a director or officer of the issuer at any time during that period, (2) any nominee for election as a director, or (3) any associate of any such director, officer or nominee. If any such transaction involved or is to involve the purchase or sale of property by or to the issuer or any subsidiary, otherwise than in the ordinary course of business, state the cost of the property to the purchaser, and the cost thereof to the seller if acquired by the seller within two years prior to the transaction.

(*f*) Name each of the following persons whose aggregate remuneration from the issuer and its subsidiaries for services during the last fiscal year exceeded $25,000 and state the aggregate amount of remuneration received by each such person and the capacity in which it was received:

(1) Each affiliate (other than majority-owned subsidiaries) of the issuer;
(2) Each voting trustee of any securities of the issuer;
(3) Each security holder named in response to Item 5 (*d*), and
(4) Each associate of any such voting trustee or security holder, or of any director or nominee for election as a director of the issuer, or of any officer specified in paragraph (*b*) above.

Item 8. If action is to be taken with respect to the selection of auditors, or if it is proposed that particular auditors shall be recommended for selection by any committee to select auditors for whom votes are to be cast, name the auditors and describe briefly any material relationship of such auditors or any of their associates with the issuer or any of its affiliates.

Item 9. If action is to be taken with respect to any bonus, profit sharing or other remuneration plan, furnish the following information:

(*a*) Describe briefly the material features of the plan, identify each class of persons who will participate therein, indicate the approximate number of persons in each such class and state the basis of such participation.

(*b*) State separately the amounts which would have been distributable under the plan during the last fiscal year of the issuer (1) to directors and officers and (2) to employees if the plan had been in effect.

(*c*) State the name and position with the issuer of each person specified in Item 7 (*b*), who will participate in the plan and the amount which each such person would have received under the plan for the last fiscal year of the issuer if the plan had been in effect.

(*d*) State separately the amounts paid or set aside for the benefit of (1) directors and officers and (2) employees during the last fiscal year of the issuer under any other bonus, profit sharing, pension or retirement plan of the issuer or its subsidiaries, the general nature of such other plan, and the amount distributed or set aside thereunder to or for each person specified in Item 7 (*b*) who will participate in the plan to be acted upon.

(*e*) If the plan to be acted upon can be amended otherwise than by a vote of stockholders, to increase the cost thereof to the issuer or to alter the allocation of the benefits as between the groups specified in (*b*), state the nature of the amendments which can be so made.

Item 10. If action is to be taken with respect to any pension or retirement plan, furnish the following information:

(*a*) Describe briefly the material features of the plan, identify each class of persons who will be entitled to participate therein, indicate the approximate number of persons in each such class and state the basis of such participation.

(*b*) State the estimated annual payments to be made by the issuer and its subsidiaries pursuant to the plan with respect to (1) past services and (2) future services. State separately the amounts of each such payment which will be made for the benefit of (i) directors and officers and (ii) employees.

(*c*) State the name and position with the issuer of each person specified in Item 7 (*b*) who will be entitled to participate in the plan, the amount which would have been paid or set aside by the issuer and its subsidiaries for the benefit of such person for the last fiscal year of the issuer if the plan had been in effect, and the amount of the annual benefits estimated to be payable to such person in the event of retirement at normal retirement date.

(*d*) State separately the amounts paid or set aside for the benefit of (1) directors and officers and (2) employees during the last fiscal year of the issuer under any other bonus, profit sharing, pension or retirement plan of the issuer or its subsidiaries, the general nature of such other plan, and the amount distributed or set aside thereunder to or for each person specified in Item 7 (*b*) who will participate in the plan to be acted upon.

(*e*) If the plan to be acted upon can be amended otherwise than by a vote of stockholders to increase the cost thereof to the issuer or alter the allocation of the benefits as between the groups specified in (*b*), state the nature of the amendments which can be so made.

Item 11. If action is to be taken with respect to the granting or extension of any options, warrants or rights to purchase securities of the issuer or any subsidiary, furnish the following information:

(*a*) The title and amount of the securities to be called for by such options, warrants or rights.

(*b*) A brief outline of the prices, expiration dates and other material conditions upon which the options, warrants or rights may be exercised.

(*c*) The consideration to be received by the issuer or subsidiary for the granting or extension of the options, warrants or rights.

(*d*) The market value of the securities called for by the options, warrants or rights as of the latest practicable date.

(*e*) State the name of each director, nominee for election as a director, or officer of the issuer, or any associate of such person who is to receive any of such options, warrants or rights and the amount called for by the options, warrants or rights to be received by each such person. State also the name and address of any other person who is to receive options, warrants or rights calling for five per cent or more of the amount subject to such options, warrants or rights and the amount called for by the options, warrants or rights to be received by each such person.

Item 12. If action is to be taken with respect to the authorization or issuance of any securities otherwise than for exchange for outstanding securities of the issuer, furnish the following information:

(*a*) State the title and amount of securities to be authorized or issued.

(*b*) Furnish a description of the securities such as would be required to be furnished in an application on the appropriate form for their registration on a national securities exchange. If the securities are additional shares of common stock of a class outstanding, the description may be omitted except for a statement of the pre-emptive rights, if any.

(*c*) Describe briefly the transaction in which the securities are to be issued, including a statement as to (1) the nature and approximate amount of consideration received or to be received by the issuer, and (2) the approximate amount devoted to each purpose so far as determinable, for which the net proceeds have been or are to be used.

(*d*) If the securities are to be issued otherwise than in a general public offering for cash, state the reasons for the proposed authorization or issuance, the general effect thereof upon the rights of existing security holders, and the vote needed for approval.

Item 13. If action is to be taken with respect to the modification of any class of securities of the issuer, or the issuance or authorization for issuance of securities of the issuer in exchange for outstanding securities of the issuer, furnish the following information:

(*a*) If outstanding securities are to be modified, state the title and amount thereof. If securities are to be issued in exchange for outstanding securities, state the title and amount of securities to be so issued, the title and amount of outstanding securities to be exchanged therefor and the basis of the exchange.

(*b*) Describe any material differences between the outstanding securities and the modified or new securities in respect of any of the matters concerning which information would be required in the description of the securities in an application on the appropriate form for their registration on a national securities exchange.

(*c*) State the reasons for the proposed modification or exchange, the general effect thereof upon the rights of existing security holders, and the vote needed for approval.

(*d*) Furnish a brief statement as to arrears in dividends or as to defaults in principal or interest in respect of the outstanding securities which are to be modified or exchanged and such other information as may be appropriate in the particular case to disclose adequately the nature and effect of the proposed action.

(*e*) Outline briefly any other material features of the proposed modification or exchange. If the plan of proposed action is set forth in a written document, file copies thereof with the Commission in accordance with Rule X–14A–6.

Item 14. Furnish the following information if action is to be taken with respect to any plan for (i) the merger or consolidation of the issuer into

or with any other person or of any other person into or with the issuer, (ii) the acquisition by the issuer or any of its security holders of securities of another issuer, (iii) the acquisition by the issuer of any other going business or of the assets thereof, (iv) the sale or other transfer of all or any substantial part of the assets of the issuer, or (v) the liquidation or dissolution of the issuer:

(*a*) Outline briefly the material features of the plan. State the reasons therefor, the general effect thereof upon the rights of existing security holders, and the vote needed for its approval. If the plan is set forth in a written document, file copies thereof with the Commission in accordance with Rule X–14A–6.

(*b*) Furnish the following information as to each person (other than totally-held subsidiaries of the issuer) which is to be merged into the issuer or into or with which the issuer is to be merged or consolidated or the business or assets of which are to be acquired or which is the issuer of securities to be acquired by the issuer in exchange for all or a substantial part of its assets or to be acquired by security holders of the issuer.

(1) Describe briefly the business of such person. Information is to be given regarding pertinent matters such as the nature of the products or services, methods of production, markets, methods of distribution and the sources and supply of raw materials.
(2) State the location and describe the general character of the plants and other important physical properties of such person. The description is to be given from an economic and business standpoint, as distinguished from a legal standpoint.
(3) Furnish a brief statement as to dividends in arrears or defaults in principal or interest in respect of any securities of the issuer or of such person, and as to the effect of the plan thereon and such other information as may be appropriate in the particular case to disclose adequately the nature and effect of the proposed action.

(*c*) As to each class of securities of the issuer, or of any person specified in paragraph (*b*), which is admitted to dealing on a national securities exchange or with respect to which a market otherwise exists, and which will be materially affected by the plan, state the high and low sale prices (or, in the absence of trading in a particular period, the range of the bid and asked prices) for each quarterly period within two years. This information may be omitted if the plan involves merely the liquidation or dissolution of the issuer.

Item 15. (*a*) If action is to be taken with respect to any matter specified in Item 12, 13, or 14 above, furnish certified financial statements of the issuer and its subsidiaries such as would currently be required in an original application for the registration of securities of the issuer under the Act. All schedules other than the schedules of supplementary profit and loss information may be omitted.

(*b*) If action is to be taken with respect to any matter specified in Item 14 (*b*), furnish financial statements such as would currently be required in an original application by any person specified therein for registration of securities under the Act. Such statements need not be certified and all schedules other than the schedules of supplementary profit and loss information may be omitted. However, such statements may be omitted for (i) a totally-held subsidiary of the issuer which is included in the consolidated statement of the issuer and its subsidiaries, or (ii) a person which is to succeed to the issuer or to the issuer and one or more of its totally-held subsidiaries under such circumstances that Form 8–B would be appropriate for registration of securities of such person issued in exchange for listed securities of the issuer.

(*c*) Notwithstanding paragraphs (*a*) and (*b*) above, any or all of such financial statements which are not material for the exercise of prudent judgment in regard to the matter to be acted upon may be omitted if the reasons for such omission are stated. Such financial statements are deemed material to the exercise of prudent judgment in the usual case involving the authorization or issuance of any material amount of senior securities, but are not deemed material in cases involving the authorization or issuance of common stock, otherwise than in exchange.

(*d*) The proxy statement may incorporate by reference any financial statements contained in an annual report sent to security holders pursuant to Rule X–14A–3 with respect to the same meeting as that to which the proxy statement relates, provided such financial statements substantially meet the requirements of this item.

Item 16. If action is to be taken with respect to the acquisition or disposition of any property, furnish the following information:

(*a*) Describe briefly the general character and location of the property.

(*b*) State the nature and amount of consideration to be paid or received by the issuer or any subsidiary. To the extent practicable, outline briefly the facts bearing upon the question of the fairness of the consideration.

(*c*) State the name and address of the transferer or transferee, as the case may be, and the nature of any material relationship of such person to the issuer or any affiliate of the issuer.

(*d*) Outline briefly any other material features of the contract or transaction.

Item 17. If action is to be taken with respect to the restatement of any asset, capital, or surplus account of the issuer, furnish the following information:

(*a*) State the nature of the restatement and the date as of which it is to be effective.

(*b*) Outline briefly the reasons for the restatement and for the selection of the particular effective date.

(*c*) State the name and amount of each account (including any reserve accounts) affected by the restatement and the effect of the restatement thereon.

(*d*) To the extent practicable, state whether and the extent if any, to which, the restatement will, as of the date thereof, alter the amount available for distribution to the holders of equity securities.

Item 18. If action is to be taken with respect to any report of the issuer or of its directors, officers or committees or any minutes of meeting of its stockholders, furnish the following information:

(*a*) State whether or not such action is to constitute approval or disapproval of any of the matters referred to in such reports or minutes.

(*b*) Identify each of such matters which it is intended will be approved or disapproved, and furnish the information required by the appropriate item or items of this schedule with respect to each such matter.

Item 19. If action is to be taken with respect to any matter which is not required to be submitted to a vote of security holders, state the nature of such matter, the reasons for submitting it to a vote of security holders, the general effect of such submission and the effect of a negative vote on the matter.

Item 20. If action is to be taken with respect to any amendment of the issuer's charter, by-laws or other documents as to which information is not required above, state briefly the reasons for and general effect of such amendment and the vote needed for its approval.

Item 21. If action is to be taken with respect to any matter not specifically referred to above, describe briefly the substance of each such matter in substantially the same degree of detail as is required by Items 5 to 20, inclusive, above.

It will be noted that these regulations are chiefly concerned with the solicitation of proxies by or on behalf of management. They specify the information that must be given in the letter soliciting the proxy. Letters soliciting proxies for a meeting for election of directors must also be accompanied ordinarily by a financial statement of the corporation for the preceding fiscal year. The S.E.C. requires that space be provided in proxies for a direction to vote "no," if the stockholder so wishes, on each matter to be acted upon at the meeting. Proposals that minority stockholders propose to bring up at the meeting, and of which they have informed management, must be tersely described in the solicitation.

At the request of any security holder, a management sending out a request for a proxy must disclose the approximate number of holders of each class of stock being solicited and the cost of mailing. The management must send out proxy solicitations or other communications for other shareholders, upon receipt of their written request to do so, delivery of the material, envelopes and postage, and "reasonable reimbursement of all expenses incurred in such mailing."

Preliminary copies of the proxies must be filed with the commission at least 10 days prior to mailing to security holders. The commission advises that final printing not take place until its comments have been received.

VOTING TRUSTS.—Under a voting trust, stockholders assign legal title to their shares to trustees in return for transferable **voting trust certificates.** The trustees thus acquire the power to vote the stock for the duration of the trust without interference from the beneficiaries. The terms of the agreement require the trustees to distribute any dividends, rights, or benefits which may accrue during the life of the trust. Statutes usually place a definite limitation on the life of a voting trust, as in New York where it is 10 years, or require that a limit be fixed.

The common reason for the creation of a voting trust is to insure continuity of control over the business for the life of the trust. Transfer of voting trust certificates does not affect control. A majority of stockholders may thereby insure continuance of control over a long period, even though ownership of their stock should change.

Stock Subscriptions

LEGAL STATUS.—A subscription to capital stock (Fig. 4) is an offer to purchase shares in a corporation. When the subscription is accepted, a binding sale of the stock results. The subscriber then becomes a stockholder at once, with the benefits and liabilities involved, later issuance of the actual certificate merely providing him with evidence of his holdings. A subscription must be distinguished from an agreement to subscribe to stock in the future. Failure to fulfill the agreement will not subject the would-be purchaser to liability as a stockholder, but only to damages for breach of his agreement. A sub-

Acme Shoe Manufacturing Co., Inc.

Incorporated under the Laws of the State of Delaware
Authorized issue 5,000 shares common
without par value.

I ..... hereby subscribe for..... shares of the Capital stock of the Acme Shoe Manufacturing Company, and, upon the call of the treasurer of said company, agree to pay therefor the sum of ..... dollars ($.....).

Subscriber .....

Address .....

Witnessed:
..... Agent

FIG. 4. Form of Stock Subscription

scription agreement should also be distinguished from a purchase or an agreement to purchase stock from another stockholder. A subscription is associated with orginal issuance of stock by a corporation. An agreement to purchase or a purchase of treasury stock is a purchase transaction and not a subscription.

In large corporations which are publicly financed, the subscriber is likely to be a banker or banking group, which then sells the shares to investors through ordinary contracts of purchase and sale.

Preferred Stock

CLASSES OF STOCK.—It is possible for a corporation to have, and many corporations do have, more than one class of stock. The distinction between classes may be merely one of voting rights; one class may have the right to vote and the other may be denied the privilege. The indifference of the American stockholder toward his right to participate in management through casting his vote at stockholders' meetings makes the sale of nonvoting stock easy, but its use has fallen into disfavor in recent years. To attract investors, priorities in the distribution of dividends and assets may be given to classes of stock known as preferred or **Class A.** Voting rights may be denied these preferred classes in exchange for the preferences given, or voting rights may be made contingent upon failure to pay dividends on preferred stock for a certain period of time. In the early 20's, when a number of Class A stocks made their first appearance, they were usually nonvoting, no-par value shares. Later it became difficult to distinguish Class A from preferred stock, the distinction being largely one of name only. It may be emphasized that within the general definitions of the various types of preferred stock to be subsequently de-

scribed, there are literally hundreds of possible minor variations in the rights, privileges, and restrictions specified.

DEFINITION OF PREFERRED STOCK.—Preferred stock is stock which, by the certificate of incorporation or the by-laws, has been given a preference over the common stock in respect to dividends. It is usually stipulated that the preferred stock will receive a certain rate of dividend before dividends will be paid upon the common stock. Preferred shares may be preferred also as regards distribution of assets upon dissolution and have other privileges not enjoyed by the common stockholders, but the dividend preference feature is the most important. If there are no further stipulations, preferred stock will in other respects have all the rights of the common stock.

DIVIDEND PREFERENCE.—Dividends on preferred stock with par value are expressed as a percentage of the par value. "Preferred as to dividends at the rate of 6% per share" is a typical charter provision. Some issues of preferred and Class A stock are without par value, and the dividend is then expressed as so many dollars and cents per share, such as "preferred as to dividends in the amount of $5.00 annually." Preferred stockholders, like common stockholders, are entitled to dividends only when declared by the board of directors. The dividend becomes a debt of the corporation only after directors have declared it. Dividend rates vary greatly. Some issues sold in the period from 1920 to 1927 bore rates as high as 8%. Rates of 5% and lower are more common today.

If preferred stock is **cumulative,** dividends not paid in any year will accumulate and must be paid at a later date before dividends can be paid on the common stock. Unless a contrary intent appears, a statement that preferred dividends "will be paid out of the profits of each year," even though the word "cumulative" is not used, may be held to make the stock cumulative. The use of the term "noncumulative" in at least one jurisdiction (Bassett v. U. S. Cast Iron Pipe Co., 75 N. J. Eq. 539) was not sufficient to prevent the courts from holding that unpaid dividends accumulated to the extent earned in years in which the corporation had profits, and had to be paid before any dividend could be distributed to the common stock. In the leading case, that of the Wabash Railway, the United States Supreme Court held that dividends do not accumulate on noncumulative preferred stocks, even if earned, provided the issuing corporation uses the retained earnings for justifiable capital improvements. (Barclay v. Wabash Railway, 250 U. S. 197, decided in 1930.) The court said:

> When the net profits of a corporation out of which a dividend might have been declared for the preferred stock, are justifiably applied by the directors to capital improvements, the claim of the stock for that year is gone, if by the terms of the articles of incorporation and the certificates, the preferential dividends are not to be cumulative. The fact that there were profits in that year out of which dividends might have been (but were not) declared, does not entitle such stock to a correspondingly greater preference over other stock when the profits of a later year are to be divided.

CLASSES OF PREFERRED STOCK.—A corporation may have more than one class of preferred stock. Also, one class of preferred stock may be issued in several series, each receiving a different rate of

dividends or differing in some other characteristic, but all enjoying the same degree of preference over the common. Each series is usually designated by a letter, as Preferred A and Preferred B.

Each class of preferred stock has a different degree of preference. For example, there may be a 6% first preferred stock, a second preferred with a preference of 8% which is entitled to dividends only after dividends have been declared on the first preferred. Some companies have put out as many as five different classes of preferred, usually in reorganizations, almost equaling some of the joint stock companies of the sixteenth century which, according to W. R. Scott (Joint Stock Companies to 1720) had as many as seven or eight different classes.

PARTICIPATING PREFERRED STOCK.—Participating preferred stock is entitled to dividends in excess of the stipulated preferential rate, under specified conditions. The question whether preferred stock is participating where this feature is not expressly stipulated in the charter has been decided differently in several jurisdictions. (See Sternbergh v. Brock, 225 Pa. 279.) The courts which have held it to be nonparticipating have considered the stated preferential rate to be also a statement of limitation. To avoid the possibility of a preferred stock being held to be participating, the phrase "preferred as to dividends at the rate of ....% per annum and **no more**" is frequently used.

The most common form of participation is to permit the preferred to share with the common in further dividend distributions, after both have received the preferential rate of dividend on the preferred. There are many types of special participation. For it may be provided that, after having been paid a preferential dividend of $3 per share and the common has received $1 per share, the preferred will be entitled to a further distribution of $1 per share before additional dividends are paid on the common stock, or to share **pari passu** with the common up to $1 more.

ASSET PREFERENCE.—If a preferred stock is, by the terms of the certificate of incorporation, preferred as to dividends only, it will share pro rata with the common stock upon dissolution. However, preferred stock is frequently **preferred as to assets** at dissolution. The preference may be to the amount of the par value or, if the stock is without par value, for a stated amount. A distinction is not infrequently made between involuntary and voluntary dissolution, and in the latter case the amount of the asset preference may be higher. Preference as to assets may be of substantial value to stockholders in case of reorganization, establishing a priority for them, or of dissolution required by law, as under the Public Utility Holding Company Act. Where the amount of the asset preference of preferred stock in liquidation is not clear, the Securities and Exchange Commission held that the shares should receive their **fair investment value.**

While the matter is by no means uniformly settled, the weight of authority in the United States is that the inclusion of a preference as to assets in the preferred stock contracts limits holders to the amount of this preference. There is a conflict in court decisions as to whether accrued dividends must be paid where there were no profits even though the contract reads "preferred as to assets up to par value and

cumulative dividends." But the weight of authority is in favor of the payment of accrued dividends upon dissolution, regardless of the earnings record.

PROTECTIVE PROVISIONS.—Occasionally provisions are included in the charter to lend protection to the preferred stock. For example, it may be provided that no bond issue and no stock issue with superior preferential rights shall be put out without the consent of two-thirds of the preferred stock, or that the property of the corporation may not be subjected to a mortgage without the consent of the preferred. Occasionally the charter stipulates that a sinking fund will be put aside each year for the redemption of the preferred stock. Sometimes, it is required that common dividends shall not be paid if this will reduce current assets to less than twice current liabilities, or until a reserve for, say, 2 years' preferred dividends has been set aside.

VOTING POWER OF PREFERRED STOCK.—The right to vote is a fundamental right of all stockholders, both preferred and common. The terms of the preferred stock contract may deny all voting rights to the preferred, or it may give the preferred the right to vote only under specified conditions, of which the following example is typical:

> The holders of the preferred stock shall not be entitled to vote at any meeting of stockholders, provided, however, that if at any time the amount of four quarterly dividend payments on the preferred stock (whether or not consecutive) shall have accumulated and remain unpaid, then the holders of the preferred stock shall have the same right to vote as the holders of the common stock, so long as any accumulated dividends on the preferred stock remain unpaid.

Sometimes preferred stock is given exclusive voting rights if a given number of quarterly dividends remain unpaid. The Security and Exchange Commission and the stock exchanges oppose the issue of preferred stock without contingent voting privileges.

The corporation statutes of a state may provide that on certain propositions the preferred stock shall have the right to vote. The New York statute, for example, requires that all stockholders be allowed to vote (1) to mortgage any corporate property, or franchise, (2) to guarantee the bonds of another corporation, (3) to sell corporate property or franchises, (4) to change priorities of any class of stock, (5) to permit a consolidation, (6) to permit voluntary dissolution, (7) to change the corporate name.

REDEEMABLE PREFERRED STOCK.—Preferred stock, especially if it carries a high dividend rate, is likely to be made redeemable or, as it is more often termed, **callable**. Such a provision in the preferred stock contract gives to the corporation the right to call in the preferred stock at a stated **call or redemption price** on advance notice of, say, 30 days or so many months. It is customary to set a call price above the par value, to compensate the owner for the involuntary loss of his investment. Redemption provisions may merely establish the right to call in the stock, or may require the corporation to establish a sinking fund for the redemption of a stipulated amount of stock each year.

The reason a corporation wants the option to redeem is the belief that at some future date it may desire to retire the issue to reduce preferred dividend requirements or because some other provision proves burdensome. The preferred stock may have been sold when the corporation had no other alternative, and the management had no thought of retaining it as a part of the permanent financial structure. In a period of prosperity when common stock is easy to sell, an offering of common shares can be arranged and the proceeds used to retire the preferred stock. When money can be borrowed on easy terms, strong corporations have borrowed at low interest rates to retire high dividend rate preferred stock. In periods of depression, corporations with low earnings but strong cash positions may find their preferred stock can be purchased in the market at low prices, and may deem it wise to use some of their surplus cash to buy up the preferred stock. Purchase of the stock below its par value results in an increase in the surplus by the difference between the amount paid and the par value

The most common advantage of callable preferred stock is the ability to refund it with an issue carrying a lower preferential dividend rate, when a decline in the level of interest rates or improvement in the credit standing of the issuer makes this practicable.

CONVERTIBLE PREFERRED STOCK.—Preferred stock is sometimes made convertible at the option of the holder into another class of stock, usually into common shares. With few exceptions, this privilege permits conversion into common shares. For example, preferred stock may be made convertible into common at $50, which means that for $100 par value of his preferred stock the holder may obtain two shares of common. If the common then sells at $75, the preferred is worth $150 on a converted basis. The conversion value will then determine the market price of the preferred shares.

The minimum selling price of convertible preferred stock is its investment value as a preferred stock issue. But it will sell at a very high premium should the common stock rise far above the conversion price specified. If the common advances in value, a corporation may force conversion by calling in the preferred at its redemption price. Usually, conversion can take place after preferred stock has been called, up to, say, 10 days of the actual redemption date.

The value of a conversion privilege may be diluted if there is no provision to protect preferred shareholders from a split-up or a stock dividend on the common shares. A consolidation with another corporation may also reduce the value of the conversion privilege. Provisions were often inserted in the charter to protect preferred stockholders from such dilution by requiring a reduction in the conversion price when additional shares are issued.

The conversion privilege may be perpetual or limited to a specified number of years. The ratio at which preferred stock may be converted into common also may vary. For example, preferred may be convertible into common at $20 for the first 2 years, at $25 for the next 2 years, and at $30 thereafter. This is done to stimulate conversion within a few years after issuance. Where convertible preferred stock is callable, conversion can be forced by issuance of a call when the shares rise well above the call price because of the value of the conversion privilege.

Other Classes of Stock

CLASSIFIED COMMON STOCKS.—Until about the end of World War I there were, generally speaking, two principal recognized classes of stocks—common and preferred. Since then common stock has been divided by some corporations into Class A and Class B, the latter having sole voting power and sharing equally with Class A common in dividends and in assets upon liquidation. In other words, the two classes of common stock are alike in every respect except that the power of management is vested in the B stock. The A stock, without voting power, is sold to the general public and represents actual contribution of capital. The B stock is issued to management, bankers who have purchased the corporation's bonds or other securities for distribution to the public, or to creditors when the corporation has undergone reorganization in consequence of its being financially embarrassed. It is usually for a much smaller amount than the A stock, and represents no substantial investment of capital, its value depending upon the subsequent earnings of the corporation coupled with the voice in management with which it is invested.

This division of the common stock into two classes, one of which is deprived of voting power and the other, a small issue held by one or a few persons, has the entire management of the corporation, is a device to gain the advantages of continuity of management. Its purpose is identical with that of voting trusts, for which it is a substitute.

The disfranchisement of common stock in the hands of the public has legal sanction. According to Milton M. Bergerman (Yale Law Jour., vol. 37), practically all statutes by implication permit an issue of stock to be deprived of voting power. Some statutes expressly allow corporations to limit the voting power as they please. The issuance of nonvoting common stock, however, has been **attacked on the ground of public policy.** It is contended that the aggregations of capital represented by modern corporate enterprises should be subjected, at least ultimately, to the control of the rank and file of stockholders, and to permit them to be controlled by limited groups is a dangerous public policy. To the contention that stockholders by and large are only interested in the safety of income and principal of their investment, and not in the management of the corporation, it is answered that while they may not exercise their right of management currently, they at least have the latent power to take matters into their own hands and correct abuses whenever the management has been unfaithful to its trust or shown inefficiency. The **New York Stock Exchange** has discountenanced the practice to the extent of refusing to list stocks of companies that do not give full voting power to all their common stock.

GUARANTEED STOCK.—Stock upon which payment of dividends has been guaranteed by another corporation is known as guaranteed stock. It may be either preferred or common. Guaranties were most widely used in the building up of large railway systems, smaller railroads being leased at a rental providing a specified rate of dividend on the stock of the lessor corporation. But industrial and public utility companies have occasionally guaranteed stocks of subsidiaries and allied enterprises also.

A guaranteed stock is, in effect, a dual security. Dividend payments are a fixed obligation of the guarantor—the issue remains the stock equity of the issuer.

FOUNDERS' SHARES.—Founders' shares or management shares are given to promoters or managers. They are usually **deferred stock,** in that dividends cannot be paid until a specified amount has been paid on other classes of stock held by the public. It is seldom used in the United States but is common in England. Where given to promoters as compensation, it is intended to demonstrate their faith in the new enterprise. Where given to management, it provides an incentive to build up earning power, for if profits are large the founders' shares may become quite valuable.

Sale of Stock

PREEMPTIVE RIGHTS.—A stockholder has a common law right to subscribe to new issues of stock before it can be offered to outsiders. This **preemptive right** is designed to protect such stockholder's proportional interest in the assets, earnings, and voting power of the business. Before offering new stock to outsiders, a corporation whose stockholders have the preemptive right must afford them a reasonable length of time to subscribe pro rata to the issue. Only if they fail to subscribe can the stock be sold to others at the same or a higher price.

It has been held that stock issued for the acquisition of property and in consolidations does not give rise to subscription rights for the old stockholders. The problem becomes complicated where there is more than one issue of stock and one of the issues is nonvoting, or votes only in certain contingencies. The weight of authority denies to nonvoting preferred stock a preemptive right to subscribe to new issues. Moreover, the uncertainty has been troublesome to corporate lawyers, who are inclined therefore to insert in the certificate of incorporation a clause denying the preemptive right to such issues.

The preemptive right in most states does not apply to originally authorized stock scheduled for sale within a reasonable period after organization. Subscribers to the original issue are then assumed to have purchased their shares with the knowledge that the authorized stock would all be sold, establishing the proportional status of the stockholders. If, by the terms of the original offering, the stockholders could prove that the unissued stock was to be held indefinitely for some future expansion they might present a good case for preemptive rights when the stock was subsequently issued. Section 39 of the New York Stock Corporation Law provides that there will be no preemptive right to subscribe to issues of originally authorized stock unless it has remained unissued for 2 years.

A number of statutes now authorize the waiver of the preemptive right in the corporate charter. Many corporations have taken advantage of this privilege, so that they do not have to offer new stock issues first to their shareholders. Section 297 of the California Civil Code goes further and abolishes the preemptive right, unless it is reserved to stockholders in the charter.

SALE TO STOCKHOLDERS.—Where the preemptive right has not been waived, or where this is considered desirable even though it has been waived in the charter, new shares are offered to old stockholders at a price lower than the market quotation. Shareholders may then either subscribe pro rata for the shares to which they are entitled, or they may sell their subscription rights to others. Stockholders constitute a group already interested in the corporation, and hence are ordinarily better prospects in the sale of stock than prospective buyers who lack a similar personal interest in and knowledge of the corporation's affairs. Sale of a new issue to stockholders can be guaranteed by a stand-by underwriting agreement. (See Section on Security Selling.)

SALE TO THE GENERAL PUBLIC.—New corporations, those with a small number of stockholders and others seeking a wider market for their shares, sell stock to the general public.

Small and medium-sized corporations selling issues under $500,000 ordinarily face a difficult task, because expenses of sale tend to be high in relation to the amount involved. Security dealers find from experience that the selling effort is often greater and the expense no less for a small issue than for a large one. The stock-buying public is slow to buy securities in little-known corporations, especially when the sale is not sponsored by well-known security dealers. Small corporations have therefore depended heavily upon sales of stock to the management and its friends, to existing stockholders, and to local capitalists.

The methods and problems of selling stock to the general public are discussed in the Section on Security Selling.

SALE OF STOCK TO EMPLOYEES.—Stock is sold to employees chiefly to foster good labor relations and reduce employee turnover. The plan has often been presented as a savings plan, but few issues are of sufficient investment quality to justify this. Unless a corporation is prepared to repurchase at the price paid for it stock sold employees, a decline in the fortunes of the corporation could cause the employee to lose both his job and his money at the same time. If all that happens is a decline in the value of the stock, the corporation, instead of building up goodwill among employees, will lose it.

Frequently a corporation will buy in outstanding stock in the market for resale to employees on the instalment plan. Stock is often sold to employees at a price lower than the market price, perhaps under a contract restricting its resale for a period of time. Such stock certificates are usually stamped across their face with the restrictive terms, so that a purchaser from the employee cannot claim to be innocent of the restrictions. Issues of new stock to employees are subject to the preemptive rights of old stockholders, if these are not waived in the charter, unless such stockholders have given unanimous consent. The New York statutes have a provision (see section 14, New York Stock Corporation Law) whereby, if a majority of the stockholders consent, new stock may be issued to employees, and if any stockholder with preemptive rights objects he may demand payment for his stock. Either the objecting stockholder or the corporation may then require that the stock be appraised as provided by section 21 of the New York Stock Corporation Law.

SALE OF STOCK TO CUSTOMERS.—The practice of selling securities to customers was popular in some fields in the 20's but has since dwindled in importance. Public utilities seeking to win consumer goodwill and to discourage agitation for lower rates sold preferred and common stock to their customers at that time. The principal security sold was preferred stock bearing dividend rates of from 5% to 7%. But the decline in utility earnings and stock prices in 1931 and succeeding years showed that customer ownership could produce ill will under adverse conditions, and the practice is no longer usual. Some smaller industrial concerns sell stock to large customers, who thereby seek to assure themselves of future supplies of needed parts or products at attractive prices. The smaller company may unduly sacrifice its independence in this way, however.

Stock Subscription Rights

ACTION BY THE BOARD OF DIRECTORS.—The issuance of additional stock must first be approved by the Board of Directors. The approval takes the form of a resolution stating the amount to be sold, the purpose of the issue, and, if authorized but unissued stock is not available, a direction to the officers of the corporation to submit a charter amendment increasing the authorized capital for approval of stockholders, either at a regular meeting or at a special meeting to be called in accordance with the by-laws. The resolution will usually state that, in the event any requisite charter amendment has been approved, the new shares will be offered stockholders at a specified price and transferable warrants evidencing subscription rights issued.

ACTION BY STOCKHOLDERS.—An increase in the amount of authorized stock requires amendment of the certificate of incorporation, which must first be approved by a vote of stockholders as directed by the statutes. Some require that such matters be submitted to a special meeting of stockholders called for the purpose. In the absence of such a requirement, the proposal can be brought up at the annual meeting, although it should be specifically mentioned in the stockholders' notice of that meeting. Following approval, the charter amendment is filed in the manner provided by law.

LETTER TO STOCKHOLDERS.—An officer of the corporation will formally announce the new stock issue to shareholders by means of a letter explaining the subscription rights offered shareholders, specifying the record date for determining who is entitled to the rights, stating how long the offer will remain open, indicating when warrants to evidence the subscription warrants will be mailed and covering the disposition of fractional rights, i.e., rights to subscribe to less than one share. Letters sent to stockholders of the Robert Gair Co. regarding a proposed issue of stock, and subscription rights for the issue, are shown in Figs. 5 and 6.

SUBSCRIPTION WARRANTS.—As soon as practicable after the record date, subscription warrants are mailed to stockholders of record on the specified date, to evidence their right to subscribe to the new issue. The warrants usually recite the terms of the issue, state the num-

ROBERT GAIR COMPANY, INC.

155 East 44th Street

New York 17, N. Y.

January 22, 1946

To the Holders of Common Stock of
Robert Gair Company, Inc.:

On or shortly after February 9, 1946, Robert Gair Company, Inc. proposes to issue to its common stockholders rights to subscribe for additional shares of its Common Stock at the rate of one additional share of stock for each three shares held.

This issue is to be part of the Company's program for financing a majority interest in a new Kraft mill in the South, full details of which will be given at the time the offering is made.

The offering is to be underwritten by a group of investment bankers, headed by Ladenburg, Thalmann & Co. and Lazard Frères & Co. It is planned that the offering price (which has not yet been fixed) will be below the market price and it is believed that the rights will have value.

The necessary additional shares are already authorized by the Company's Certificate of Incorporation. Application has been made to register them under the Securities Act of 1933 and the Securities Exchange Act of 1934. Unless and until so registered, the shares will not be so offered. If the offering is made, stockholders will be sent a prospectus setting forth information regarding the Company, its Kraft mill financing program and the offering which should be examined carefully.

The close of business on February 8, 1946 (or, if the registration statement becomes effective on a date subsequent to February 8, 1946, then the close of business on such later date) has been fixed as the record date to determine the holders of Common Stock to whom rights will be issued, after the registration statement has become effective. In accordance with the Company's arrangement with the Underwriters the rights will expire fifteen days after their date of issue, or if the fifteenth day is a Sunday or holiday, then on the next succeeding business day. This letter is being sent to you to outline the procedure now contemplated and in order that you may be able to give consideration to the offering when and if made.

This letter is not to be considered as an offer to sell or the solicitation of an offer to buy securities of the Company; no such offering or solicitation can be made until the registration statement has become effective. No offer to buy securities of the Company comprised in the offering should be made, nor will such offers be considered, prior to the effective date of the registration statement and the making of the offering.

By authority of the Board of Directors.

Wilbur F. Howell,
Secretary.

Fig. 5. Letter to Stockholders Announcing Plan for a New Stock Offering to Them

ROBERT GAIR COMPANY, INC.
155 EAST 44TH STREET
NEW YORK 17, N. Y.

FEBRUARY 11, 1946.

TO THE COMMON STOCKHOLDERS:

The Board of Directors of your Company has authorized the issue of an additional 410,481 shares of its Common Stock for subscription by Common Stockholders of record at the close of business on February 11, 1946, at the price of $6.50 per share, at the rate of one share of Common Stock for each three shares of Common Stock held of record on said date.

The Registration Statement filed under the Securities Act of 1933, as amended, with respect to the additional shares of Common Stock, became effective on February 11, 1946. **The offering of the shares is made only by the Prospectus, a copy of which is enclosed.**

Transferable Warrants evidencing such subscription rights are being issued to Common Stockholders of record on said record date, and there is enclosed herewith the Warrant(s) to subscribe for the appropriate number of shares to which you are entitled. No subscription may be made in respect of any Fractional Share Subscription Warrant unless it is surrendered with other Fractional Share Subscription Warrants together aggregating rights sufficient for subscription for one or more full shares.

There is attached hereto a form of Letter of Transmittal to accompany the subscription. This form may be detached and used by holders of Warrants who desire to subscribe for stock under the Warrants. **The instructions on the back of the Letter of Transmittal should be carefully followed.**

If not exercised, the Warrants will expire at 3 P. M. Eastern Standard Time, on February 26, 1946, and holders who desire to exercise their subscription rights must have the Warrant(s) and payment in the hands of the Subscription Agent by that time, executed in accordance with the instructions on the back of the Letter of Transmittal. Warrants not exercised by the time of expiration will be void and of no value. As explained more fully in the instructions, which should be carefully read, you may sell or transfer Warrants upon which you do not wish to subscribe.

As set forth in the Prospectus, a group of underwriters headed by Ladenburg, Thalmann & Co. and Lazard Frères & Co. have severally agreed to purchase, at $6.50 per share and on the terms and conditions specified in the Underwriting Agreement, any shares not subscribed for upon the exercise of the Warrants.

Very truly yours,

WILBUR F. HOWELL, *Secretary.*
ROBERT GAIR COMPANY, INC.

FIG. 6. Letter Offering Stock for Subscription by Stockholders

(Leave these spaces blank)

Date .....
Ticket Number
C. T. .....
L/T No. .....

LETTER OF TRANSMITTAL

To Accompany Subscription Warrants for Common Stock $1 Par Value of

ROBERT GAIR COMPANY, INC.

Date.....

MANUFACTURERS TRUST COMPANY, *Subscription Agent,*
Corporate Trust Department,
55 Broad Street,
New York 15, N. Y.

DEAR SIRS:

The undersigned hereby acknowledges receipt of a copy of the Prospectus issued under date of February 11 1946 by Robert Gair Company, Inc. relating to 410,481 shares of Common Stock of said Company and the offering thereof for suoscription by Common Stockholders of record at the close of business on February 11, 1946 at the subscription price of $6.50 per share. With this Letter of Transmittal there are enclosed Subscription Warrants, as listed herein, representing the right to subscribe in the aggregate for the number of shares of Common Stock indicated below, with the form of subscription endorsed thereon duly executed and with cash, certified check, or bank draft, payable to the order of Manufacturers Trust Company, at the rate of $6.50 in respect of each share subscribed for, (plus the necessary amount, if any, to cover any transfer stamp taxes which may be required as stated in the instructions on the reverse side hereof.)

Please read carefully the instructions on the reverse side hereof.

Warrant Numbers	Aggregate Shares to be subscribed for
Full Shares	
Fractional Shares	

Issue certificate(s) for said stock to	Deliver certificate(s) by ☐ mail ☐ against counter receipt of
Name	Name .....
Street	Street .....
City-State	City-State .....
(Please typewrite or print name and address in full)	(Please typewrite or print name and address in full)

Very truly yours,

.....
(Signature of subscriber or agent)

FIG. 7a. Letter of Transmittal to Accompany Subscription Warrants with Payment for a New Stock Offering

LEAVE THESE SPACES BLANK

Received by	Checked by	Stops Checked by	Shares Subscribed	Cash Received	Certificate Numbers Issued
				$	

INSTRUCTIONS

The number of shares to be subscribed for, the warrant numbers, and the name in which the stock is to be issued and delivered should be filled in on this Letter of Transmittal by the person subscribing to the stock.

Subscriptions must be made by executing the form for subscription on the back of the Warrants, and delivering the Warrants together with payment in full of the subscription price to the Company's Subscription Agent, Manufacturers Trust Company, 55 Broad Street, New York 15, N. Y., on or before 3 P. M., Eastern Standard Time, on February 26, 1946. In the case of Fractional Warrants (aggregating one or more full shares) the subscription on only one Fractional Warrant need be signed. Subscriptions will be accepted for full shares only. Payment for shares subscribed for must be made in full on or before 3 P. M., Eastern Standard Time, February 26, 1946, at the time of making the subscription. The subscription price must be paid in cash, or by certified check or bank draft, payable to the order of Manufacturers Trust Company. If the mails are used, registered mail is suggested.

If the stock certificate is to be issued in the name of a person other than the registered holder of the Warrant, the assignment space on the reverse side of each Warrant must be signed by the registered holder and the signature(s) witnessed and guaranteed by a bank or trust company (other than a savings bank) having an office or correspondent in the City of New York, or by a firm of brokers having a membership in the New York Stock Exchange; and Federal stock transfer stamps at the rate of five cents (5¢) for each $100 par value (or fraction thereof) should be affixed or the cost of such transfer stamps should be paid with the subscription payment.

If the subscription or assignment is executed by an officer of a corporation, executor, trustee, guardian, attorney, or other fiduciary or person acting in a representative capacity, the full title of the person executing the same in such capacity should be given, and proper evidence of authority must be submitted.

Warrants are of two kinds: (1) Full Share Subscription Warrants entitling the holder to subscribe for one or more full shares of Common Stock, and (2) Fractional Warrants covering right in respect of one-third of a share. Certificates of stock will be issued only for full shares, and Fractional Warrants can be exercised only by being combined with other Fractional Warrants representing in the aggregate the right to subscribe for one or more full shares. Combinations of Fractional Warrants to permit subscriptions for full shares may be made through the purchase of additional Fractional Warrants.

FIG. 7b. Instructions Appearing on Back of Letter of Transmittal

Shareholders may sell or transfer Warrants upon which they do not wish to subscribe. The Warrants are expected to be listed on the New York Stock Exchange, and purchases or sales can be made through brokers or banks. Neither the Company nor its Subscription Agent can sell or purchase the Warrants. In case of a sale or transfer of a Full Share Warrant, it is necessary to execute the form of assignment on the back of the Warrant. However, Fractional Warrants are in bearer form and require no signature for assignment, being transferable by delivery. Both Full Share Subscription Warrants and Fractional Warrants are exchangeable at the Stock Transfer Department of Manufacturers Trust Company, 55 Broad Street, New York 15, N. Y., in accordance with their terms, for other similar Warrants representing the right to subscribe for a like aggregate number of shares.

Warrants not exercised on or before 3 P. M. Eastern Standard Time, February 26, 1946, will be void and of no value.

FIG. 7c. Instructions (continued)

ber of shares to which the stockholder is entitled to subscribe, the subscription price, the office which will receive the subscription, the final date for exercise of the rights, and the date the new stock will be issued. On the back of the warrant there is a subscription agreement to be signed by the subscriber, and a form for the assignment of the warrant in case the shareholder wishes to sell it to someone else.

A similar form is provided for fractional warrants where a stockholder is entitled to subscribe to a fractional share. The fractional warrants are the same as the warrants for full shares, except that they usually specify that the warrant must be accompanied by other fractional warrants to make up a right to buy one full share. Occasionally provision will be made for the substitution of cash for additional fractional warrants. A letter of transmittal to accompany subscription warrants of the Robert Gair Company, Inc., with instructions on back of letter, is shown in Figs. 7a, 7b and 7c.

VALUE OF SUBSCRIPTION RIGHTS.—New stock is usually offered shareholders at a price lower than the current market quotation for the old shares. The subscription rights will then have a market value. The reason why rights have a value is indicated by the following example.

Suppose a corporation is increasing its outstanding stock by 50% through an offering to stockholders. To maintain his proportionate interest in the corporation, a stockholder is entitled to subscribe to one-half a new share for each share he owns. If the offering price is $44 and the market price is $50, the stockholder owning two shares worth $50 each may subscribe to one new share for $44. This brings the market price per share down to $48, other things remaining equal. Each old share will have lost $2 of its market value in the averaging process, and the new share will be worth $4 more than its cost. When the rights are issued, the price of the stock ex-rights will decline in the market to $48 (assuming no other factors have affected the quotation). The decline will be caused by the dilution of the equity as a result of

the sale of new stock below the prevailing market price. The stockholder theoretically is no better off; he lost $2 on each of his old shares but gained $4 on his one new share.

Should the stockholder not desire to exercise his rights, he may sell them on the market at or about $2 each. Rights to buy listed issues are usually listed and quoted on stock exchanges.

Trading in the stock itself is continued on a **rights on** or **cum rights** basis so long as the stock carries with it, in the above example, the right to subscribe to one-half of a new share. To ascertain the value of the right during this period, the following formula may be used, R representing the value of the right, M, the market price of the old stock, S, the subscription price of the new shares, and N the number of old shares required to subscribe to one new share:

$$R = \frac{M - S}{N + 1}$$

Substituting the figures in the above example,

$$R \text{ (the value of the right)} = \frac{\$50 - \$44}{2 + 1} = \$2$$

After the record date the stock will sell "ex-rights," which means that the value of the right has been deducted from the market price because the stock no longer carries rights. Under the rules of the New York Stock Exchange, transactions in shares are ex-rights on the second full business day preceding the record date. The value of the right will then approximate the difference between the market and the subscription price, divided by the number of shares of old stock required to subscribe to one new share.

In spite of the fact that the value of the right is merely compensation to stockholders for the loss in value of their old shares, stockholders are inclined to look upon the receipt of rights as in the nature of a bonus. This reflects the fact that most stockholders are not "equity" conscious, and consider any cash realized as additional income on their investment. Then, too, investors believe with some foundation that if the same dividend rate is maintained, the market value of the stock will tend to return to the old price.

MARKET QUOTATIONS FOR RIGHTS.—A stockholder in possession of rights may dispose of them in one of the following ways:

1. Exercise the rights by subscribing for the new stock.
2. Sell the rights.
3. Sell part of his stock and subscribe for new shares by use of his rights to replace the shares sold.
4. Sell short the shares to be purchased against the rights, which will be delivered at the time of receipt against the short sale.

The tendency of the market price of the rights is to maintain a parity relation with the market price of the stock. When the two prices are in that relation, there is no advantageous choice between the purchase of the rights and subscribing for the new stock, and the purchase of the old stock. The price of the rights will accordingly move up and down with the fluctuations of the stock, owing to the activities of the arbitragers who are quick to take advantage of any disparity between

the two values in order to gain a profit. If, for example, the stock is **selling at a premium** above its parity with the rights, they sell the stock short and purchase the rights. This purchase and sale causes the two quotations to draw closer to mutual parity. The arbitragers may hold this position until the expiration date for the rights, when they will exercise their rights and a few days later deliver the new securities on their short sales of the stock. Or if the relative market position of the stock and the rights should reverse itself, and the stock should be quoted at a discount from parity with the rights or at a smaller premium, they will undo their position by covering their short sale in the stock and at the same time sell the rights they hold, incidentally increasing their profit.

In a **practical arbitrage transaction,** however, certain other factors must also be taken into account. Allowance must be made for payment of the subscription in instalments, if such is called for. This is usually done by reducing the several successive payments to a common basis by means of interest adjustments. The date on which the final instalment is due is taken as a basis, and interest to that date is added to the earlier instalments. Account must also be taken of the broker's commissions for executing the sales and purchases of the old shares and the rights, any dividends that will be declared pending the receipt of the new stock, and any interest the issuing company may allow on the early instalment payments of the subscription price or any interest the issuing company may charge on the deferred payments.

Bonus Stock

DEFINITION AND USES.—Bonus stock is issued to aid in the marketing of another class of security. The most frequent instance of its use is in connection with the sale of preferred stock, although it may be issued also in connection with the sale of bonds, usually debentures. The purchaser of the senior security is, through the bonus stock, given an opportunity to realize speculative gains, while enjoying a senior position for his investment.

CONSIDERATION FOR BONUS STOCK.—The only kind of stock which may be issued without any consideration is treasury stock. Therefore, stock is sometimes issued for property or services to those interested in financing a new corporation and then donated to the corporation, to create treasury stock which can be used as a bonus to facilitate sales of preferred stock or bonds to the public. Another procedure is to consider part of the price received for the preferred stock or bonds as the consideration for common stock issued as a bonus.

Stock purchase warrants have supplanted bonus stock in corporate financing to a large extent.

Stock Purchase Warrants

NATURE OF STOCK PURCHASE WARRANTS.—These warrants, also known as option warrants, are commonly issued with or attached to bonds, preferred and at times common stock, and entitle the owners of those securities to purchase usually shares of common

stock, in a stated ratio to their holdings, at a certain price per share, and within a stated period or for an indefinite time. Sometimes warrants accompanying bonds or notes give the right to subscribe for preferred stock. The **purpose of the warrants** is to make the bond or stock they are attached to a more attractive purchase to investors. The holders of securities with warrants have not only the greater security that goes with a bond, note, or preferred stock, but will also have an opportunity to participate in any speculative profits the future may bring the common stockholders. They will be able to purchase the common stock at the fixed price, when its market value is above, or if they do not desire to subscribe, they will have the advantage of seeing the option-bearing bonds or preferred stocks they hold, or the warrants if detached, rise in value in sympathy with the common stock. Option warrants are frequently issued in reorganizations, in mergers and consolidations and in promotions, at times in lieu of common stock. They may also be issued as compensation for management. Where the profit realized on their sale is a long-term capital gain, they have a marked tax advantage.

DETACHABLE AND NONDETACHABLE WARRANTS.—Option warrants are generally attached to the security with which they are originally issued, and they are subsequently either detachable or nondetachable. If detachable, they are separately negotiable. The option-bearing security is then quoted both with and without warrants. The warrants may be **detachable** immediately upon issuance, or not until some stated date, or upon the redemption or maturity of the option-bearing security if the warrants do not expire with that redemption or maturity.

If the warrants are **nondetachable,** there can be no market for them, and their value remains merged with that of the bond or stock to which they are attached. They are only detached when they are exercised, or upon the redemption or maturity of the option-bearing security. Stockholders presenting them for subscription for the common stock, if they are issued with preferred stock, may either receive back the preferred stock certificate without the warrants, together with a certificate for the new common stock, or they may get a new preferred stock certificate, depending upon the practice adopted by the issuing company. An owner of a stock purchase warrant may care to exercise his option only partially. In that case, he can exchange his preferred stock certificate carrying the warrant for two certificates also with warrants, one of which will call for the number of shares of common stock he wishes to subscribe for.

Option warrants are at times issued as separate certificates delivered simultaneously with bonds or preferred stock, or as entirely independent instruments not connected with any obligation or stock. They have been issued to and retained by banking houses as a part of their compensation for undertaking the flotation of a security or for assisting in the promotion of a new concern, but this practice has been criticized by regulatory authorities.

DURATION OF THE OPTION.—Stock purchase warrants extend over periods of varying lengths. The time in which they are exercisable may begin immediately upon the issuance of the securities they

are attached to, or not until several years after their issuance. They may then run for a stated number of years within the life of the option-bearing security, anywhere from 1 to 2 years to 20 or more. They may be perpetual.

If the bond or stock is redeemable, the warrant may become void with redemption, or void a number of days after redemption, or it may continue in effect for a number of years after redemption. Similarly, it may expire with the maturity of the bond or may extend beyond the bond's maturity. Warrants are sometimes issued which may be exercised only upon the redemption of the stock carrying them. The warrant thus partly offsets the disadvantage to the holder of the preferred stock of having his investment retired.

EXERCISE OF THE OPTION.—The subscription price named in warrants is ordinarily fixed above the current market value of the stock subject to the option, with the result that it is not immediately profitable to exercise the warrants. The warrant holder must wait until the market price rises above the subscription price. If the market price should never score this advance before the expiration date of the warrants, they will be valueless at that time. If, on the other hand, it should rise above the subscription price, the warrants become equivalent to the stock rights except that the holders of the option warrants have a longer period in which to exercise them. The option warrants may still have many years to run before they expire; on that account holders may postpone exercising them immediately and may be satisfied to see the value of the warrant rise with the price of the stock to be subscribed for. Their attitude is analogous to that of holders of convertible bonds, who do not necessarily convert as soon as the stock into which the bonds are convertible rises above the conversion price, since the bonds will score an approximately equivalent advance. Because a smaller investment is required to hold warrants than the stock that may be purchased with them, and the percentage rise in the price of a warrant exceeds the rise of the stock, these options are favored by speculators. They usually sell at substantial premiums over their mathematical value.

OPTION WARRANTS AND PREEMPTIVE RIGHTS.—The issue of stock purchase warrants is subject to the stockholders' preemptive right to purchase the new shares called for by the option, except where by charter or by-law provision the stockholders have given their consent to the sale of the option-bearing securities to others. Stock purchase warrants are instrumental in the procurement of a higher price for the securities they are attached to. The common stockholders are, therefore, benefited at the outset by the issue of option warrants to others than themselves. If the options are exercised and the new common stock issued, their equity is diluted by reason of the fact that the new shareholders secured the stock for less than the market price prevailing at the time.

Fractional Shares

HOW FRACTIONAL SHARES ARISE.—Fractional shares arise out of stock dividend declarations, the issue of stock rights and stock purchase warrants, stock split-ups, stock and bond conversions, recapi-

talizations, and exchanges of stock in corporate combinations and reorganizations. In the case of a 10% stock dividend, for example, an owner of five shares would be entitled to receive but one-half a share as his portion of the dividend. The problem of how to handle fractional shares has been given considerable thought by corporations and investment bankers.

Inconvenience Caused by Fractional Shares.—Certificates may be issued for fractional shares. This is satisfactory neither from the standpoint of the corporation nor of the shareholders, since the fractional shares may remain outstanding indefinitely and cause considerable inconvenience. Accounting for great numbers of fractional shares on the books of a corporation will lead to endless complications. Dividend payments must be made on the fractions. Transfers of fractions are costly. It is far better to convert fractional into full shares as soon as practicable.

METHODS OF DISPOSING OF FRACTIONAL SHARES.—The issuance of fractional shares is generally avoided. They are handled instead by one of the three following methods or a combination of these methods:

1. Payment in cash by the corporation.
2. The issuance of retirable scrip certificates.
3. Permitting stockholders to accumulate credits for fractional shares.

The whole problem connected with fractional shares is sometimes avoided by the company purchasing fractions, or old shares entitled to fractions.

Thus, when convertible prior participating stock of the Automatic Registering Machine Co. was offered for sale, the company undertook to buy for cash, on the basis of $7.50 for a full share, the fractional shares of common stock that would be issuable in converting the prior participating stock at the rate of common for every three shares of the prior participating.

SCRIP CERTIFICATES.—The more usual method of disposing of fractional shares is not to issue them at all, but to issue instead scrip certificates, which are in effect warrants representing claims to fractional share interests. These scrip certificates are "bearer" certificates, being transferable by delivery. They have no voting power, and only occasionally are they entitled to dividends or interest, payable when they are surrendered. At times dividends on the stock represented by scrip are payable to the first registered holder of stock issued for them. The scrip may be either cashed on a specified basis, accepted as part payment for full shares, the balance being paid in cash, or they may be assembled until they aggregate a full share or shares and then be exchanged for a stock certificate. A limited time is set for the redemption of the scrip—usually 2 or 3 years. In the case of companies which pay periodic stock dividends and therefore have many thousands of fractional shares constantly outstanding, the time allowed may be 10 or more years. The company may offer to purchase the remaining scrip when the final date for its retirement will arrive, or it may stipulate that on and after that date the scrip will be void.

The most usual method for dealing with scrip certificates is to provide for their exchange for whole shares when they are presented in amounts aggregating full shares. Holders may then buy or sell scrip in the open market, or the issuing company may make a market and deal in the scrip for this purpose, or have its transfer agent do it.

CREDIT FOR FRACTIONAL SHARES.—A practice developed in some cases where corporate financing practices continuously give rise to thousands of fractional shares is to credit them to stockholders' accounts until a full share has been accumulated, at which time a full share certificate is delivered to the shareholder. Some companies issue scrip certificates for fractional interests and credit them on their books only when requested by stockholders. Others do not issue certificates at all, but merely credit fractions to stockholders' accounts. It is not the fractional shares which are credited in these instances, but the scrip representing them. Fractional interests in shares also arise when bonds or preferred shares are sold with stock purchase warrants. In such cases the issuing company usually refuses to recognize warrants for fractional shares, and the holder must either purchase additional warrants sufficient to call for full shares, or lose the fractional privilege.

SECTION 11

BOND FINANCING AND BORROWING

CONTENTS

PAGE

Principles of Borrowing

Description 459
Power to incur debt 459
Corporate authorization 459
Public regulation of bond issues 460
Types of borrowing 460
Short-term vs. long-term borrowing 460
Unsecured vs. secured borrowing .. 460
Advantages of debt financing 460
Disadvantages of debt financing 461
Social disadvantages 462
Tax aspects of borrowing 462
Principles of debt financing 462
Business cycle and debt financing.. 462
Long-term industry trends and debt financing 462
Earnings coverage and debt financing 462
Amortization and debt financing.. 463

Short-Term Debt

Reasons for use 463
Promissory notes 463
Term-loans 464
Commercial paper 465
Pledging accounts receivable 466
Factoring 467
Field warehouse loans 467

Bonds

General characteristics 468
Denomination 468
Forms of bonds—coupon bonds 468
Registered bonds 469
Terms of payment 470
Bonds payable in gold 470
Interest payments 470
Tax-free covenants 471
Call feature 471
A typical redemption notice (*f.* 1) 472

Bond Indentures

The need for the bond indenture 473
Government and municipal bonds not issued under a trust indenture 474
Corporate trustees 475
Certification of bonds 475
Mechanical duties 476
To enforce the terms of the indenture 476
Trust Indenture Act of 1939 476
A trustee's report to bondholders (*f.* 2) 478

PAGE

Provisions of a Bond Indenture

Summary of contents 479
Names of the parties 480
The preamble 480
Grant or assignment of trust 480
Conditions governing the issue of bonds 480
Particular covenants of the indenture 481
Remedies of trustees and bondholders 481
Period of grace 482
Acceleration of maturity in cases of default 483
Individual action of bondholders 483
Releases of mortgaged property 484
Consolidations and mergers 485
"No recourse" clause 485
Changes in trust indentures 485
Supplemental indentures 486

Mortgage Bonds

Mortgage instruments 486
Purpose of the mortgage 487
Closed mortgage 487
Disadvantages of closed mortgages.. 487
Purpose of issue of closed mortgage bonds 488
Open-end and limited open-end mortgages 488
Restrictions on issue of bonds under open-end and limited open-end mortgages 489
Illustration of multiple restrictions under an open-end or limited open-end mortgage 489
Issuance of bonds against deposit of cash with trustee 490
Bonds issued in series 490
Mortgage on after-acquired property 491
Effect of after-acquired property clause on existing liens on subsequently acquired property 492
Purchase money mortgage as an escape from after-acquired property clause 492
Organization of subsidiary to avoid after-acquired property clause 492
Avoiding effects of after-acquired property clauses by consolidation.. 492
After-acquired property clause in open-end mortgages 493
Scope of lien and mortgage bond titles 493
Divisional bonds 494
Terminal bonds 494

PAGE

Collateral Trust Bonds

Nature of security 494
Types of collateral 495
Covenants and agreements of collateral trust indentures 495
Deposit of pledged securities 495
Payment of principal, interest, and dividends on pledged securities 495
Voting pledged stock 496
Release of pledged securities 496
Consolidation, merger, or sale of assets of subsidiary 497
Reorganization of subsidiary company 497
Pledge of miscellaneous collateral 497
Reasons for use of collateral trust bonds 498
Credit position of collateral trust bonds 498

Equipment Obligations

Character of obligation 499
Equipment mortgage plan 499
Conditional sale plan 499
Philadelphia plan 499
Covenants in equipment obligation agreements 500
Use of equipment trust obligations outside railroad industry 501
Strong credit position of equipment trust obligations in railroad industry 501

Guaranteed Bonds

Purpose 501
Forms of guaranty 502
Joint and several guaranties 503
Value of the guaranty 503
Legal position of guaranteed bonds.. 503

Debenture Bonds

General character 504
Usual covenants 504
Examples of protective provisions in debenture agreements 504
Types of companies issuing debentures 505

Convertible Bonds

Nature of the conversion right 505
Advantages and disadvantages of convertible bonds 505
Conversion ratio or price 506
Fixing conversion rate 507
Time of conversion 507
Subscription privilege 507
Protective features against dilution or destruction of conversion privilege 508
Interest and dividend adjustments .. 509
Instructions regarding the registration of capital stock issued in conversion of bonds (*f.* 3).. 510
Actual conversion 509
Bonds with warrants 511

PAGE

Income Bonds

Nature of obligation 511
Discretionary payment of interest on income bonds 512
Cumulative and noncumulative income bonds 512
Reasons for use of income bonds 512
Capital funds 513
Determining when interest is earned.. 513

Miscellaneous Classes of Bonds

Joint bonds 513
Assumed bonds 514
Participating bonds 514
Voting bonds 514
Treasury bonds 515

Bond Amortization and Retirement

Necessity for amortization 515
Methods of bonds retirement 515
"Call" method of retirement 515
Amortization through sinking fund.. 516
Types of sinking funds 516
Fixed annual amounts 516
Variable annual amounts 517
Percentage of earnings 517
Per unit of output 517
Uses of sinking fund 518
Purchase of bonds of same issue 518
Investment in other securities 518
Investment in assets of issuing corporation 518
Deposit of bonds in sinking fund in lieu of cash payments 518
Dangers of excessive sinking fund charges 519
Serial bond maturities 519
Fixing the size of serial maturities .. 519
Table showing how uniform annual payments retire a debt by maturity (*f.* 4) 520
Redeemable serial bonds 520
Comparison of sinking fund and serial bonds 521

Refunding of Bonds

Nature of operation 521
Refunding before maturity 521
Methods of refunding 521
Factors to consider in refunding before maturity 522
Refunding at maturity 522
Extensions 523

Redemption of Bond Issues

Nature of redemptions 523

Leasing vs. Borrowing in Financing Buildings

Operation under lease 524
Advantages to corporation of leasing buildings 525
Disadvantages to corporation 525

SECTION 11

BOND FINANCING AND BORROWING

Principles of Borrowing

DESCRIPTION.—Contrasted with the ownership elements in a business corporation is the type of financial interest created by borrowing, which results in a debt by the corporation to the lender. The lender or creditor acquires a prior claim to the income of the business for his interest and, at maturity or default, the principal of the loan is a prior claim to the assets of the corporation, which must be satisfied before the stockholder-owners receive anything.

POWER TO INCUR DEBT.—The right of an ordinary business corporation to borrow money for its corporate purposes is an **implied right** and does not have to be specifically granted in its charter. The only general common-law restriction is that the borrowing must be bona fide and for the benefit of the corporation. Grange (Corporation Law for Officers and Directors) says, "no express statutory or charter provision is needed to authorize a bond issue. Neither is it necessary, in the absence of any restrictions in the governing provisions, for the stockholders to vote upon the proposition to issue bonds. A mere directors' resolution is sufficient authority for this purpose in most states." However, some states have statutes regulating the power to issue bonds or to mortgage property, which provisions are then governing. Thus, the New York Stock Corporation Law (section 16) reads as follows:

> Every stock corporation other than a moneyed corporation shall have the power to borrow money and contract debts, when necessary for the transaction of its business, or for the exercise of its corporate rights, privileges or franchises, or for any other lawful purpose of its incorporation; and it may issue and dispose of its obligations for any amount so borrowed, and may mortgage its property and franchises to secure the payment of such obligations, or of any debt contracted for such purposes. The consent to the execution of such mortgage, except a purchase-money mortgage, by the holders of not less than two-thirds of the total number of shares outstanding entitled to vote thereon, given either in writing, or by vote at a meeting of the stockholders called for that purpose in the manner prescribed by section forty-five, shall be required.

CORPORATE AUTHORIZATION.—In the creation of corporate indebtedness, corporations are required to follow the procedure specified in the laws of the state of incorporation, the certificate of incorporation, and the by-laws. This consists of a series of steps and resolutions by the directors and, if necessary, the stockholders of the corporation. They generally comprise the following, in the order of their occurrence:

1. A reference in the minutes of the corporation to the authority of the board of directors to create a bond issue and enter into a mortgage arrangement.
2. A resolution of the board of directors authorizing the proper officers of the corporation to issue the bonds and sign a mortgage indenture, or deed of trust.
3. A stockholders' meeting approving the resolution of the directors, if required by statute or by the charter or by-laws of the corporation.
4. A certified statement that the necessary approval of stockholders and directors has been obtained.

Following these steps, the trust indenture is drafted and the bonds are issued.

PUBLIC REGULATION OF BOND ISSUES.—The ordinary business corporation requires no direct sanction of a government authority to create funded debt. The laws of most states require new railroad and public utility issues of funded indebtedness to be sanctioned by public service commissions. The Transportation Act of 1920 has given authority over railroad bond and stock issues to the Interstate Commerce Commission. Similarly, the Public Utility Holding Company Act of 1935 gave authority to the Securities and Exchange Commission to approve or disapprove of bond and stock issues of registered public utility holding companies and their subsidiaries.

TYPES OF BORROWING.—These may be classified from two points of view.

Short-Term vs. Long-Term Borrowing.—The purpose of the loan will affect its maturity. If money is borrowed for the construction of a new building, the purchase of land or the acquisition of other capital goods, the term will usually be long enough to give the borrower time to repay at least a portion, if not all, of the loan out of earnings from these capital assets. On the other hand, where money is borrowed for the purchase of commodities to be processed and resold, the term will be influenced by the time it takes to sell the processed goods and receive payment therefor.

Short-term and long-term credit instruments are discussed below.

Unsecured vs. Secured Borrowing.—The strength of the general promise of the borrower to pay (dependent chiefly upon current and prospective earning power) will generally determine whether it will be necessary to pledge specific security for the loan, as by a mortgage on fixed property or the pledging of receivables. The greater the ability to pay, the more likely that the loan will be unsecured. However, some types of lenders must as a matter of law require collateral, at least as regards certain types of loans.

ADVANTAGES OF DEBT FINANCING.—Corporations favor bond financing because of:

Preservation of Control.—If stock is sold repeatedly to meet the expanding capital requirements of a business, the result may be a loss of control to the existing management. Since bonds generally have no voting power, their use leaves control of a corporation undisturbed so long as no default occurs.

This advantage could be more apparent than real if the creditors or the investment bankers selling the bonds should demand a position on the board of directors or attempt in other ways to influence the management. On the other hand, if stock is widely distributed the efficient use of the proxy device could make it difficult to upset the existing management.

Public Disclosure.—Borrowing without a public offering of bonds makes it unnecessary for management to disclose the affairs of the business through filing a registration statement under the Securities Act of 1933, as is required for stock offerings. Many smaller businesses and "close corporations" prefer to borrow for this reason.

Widening Possible Sources of Funds.—Most institutional investors such as banks and life insurance companies may invest exclusively or mainly in bonds or other evidences of debt. To tap these rich sources of funds, borrowing is usually necessary.

A Lower Charge Against Earnings.—Since bonds carry a legally enforceable promise to pay interest periodically and principal at maturity, investors generally accept a lower return on bonds than the yield inducement that must be offered on stock. The over-all cost of funds to a business which maintains an acceptable investment standing is reduced where debt is used.

Trading on the Equity.—Many concerns find it profitable to borrow a part of the capital needed in the business, since the rate of return from the use of the borrowed funds exceeds by a good margin the interest rate paid for the use of borrowed money. In this way the return to the stockholder on his equity is made more profitable than it would be otherwise.

Tax Savings.—In recent years a most important advantage of debt financing has been the tax advantage, since interest is a deduction from taxable income for income tax purposes whereas dividends paid are not allowable deductions. Many corporations substituted debt for preferred stock during the wartime period of high taxes.

DISADVANTAGES OF DEBT FINANCING. — Arguments against resort to bond financing are:

Present Borrowing Undermines Ability to Borrow in Future.—Financial history is replete with examples of corporations which found it advantageous to preserve their borrowing power as a last recourse in the event money must be raised for whatever reason.

Trading on the Equity May Magnify Losses.—Interest on debt is a fixed charge that must be paid even when earnings decline. If a business suffers an operating deficit, its loss will also be increased by the need to pay interest.

Financial Weakening of Company.—The need to meet fixed interest requirements, sinking funds or serial maturities and principal at maturity soon weakens the financial position of a concern with limited earning power. Maintenance of property may be neglected and cash resources impaired under the pressure to remain solvent by paying interest and principal as they fall due. Fixed charges thus limit managerial discretion in formulating business policies, which can be doubly dangerous in an era of rapid economic change.

Threat to Solvency of Business.—Many corporations find that their earnings lack the necessary stability to permit successful use of debt. A sudden decline in earnings may bring default and force reorganization of the business due to inability to meet interest or principal repayments as these fall due. The reorganization often spells loss of control for the management.

Social Disadvantages.—Inability to meet debt payments and resultant business insolvencies, when widespread, tend to undermine confidence and prolong depressions. Similarly, a heavy debt load may prevent business managements from adjusting operations promptly and thus promoting recovery.

TAX ASPECTS OF BORROWING.—The corporate income tax is an important factor in the determination of corporate financing methods. Under a combined normal and surtax rate of 52%, if a corporation borrows at 3% the effective cost would be only 1.44%. If a corporation seeks $1,000,000 of additional capital and is debating whether to borrow at 3% or to sell a 4½% preferred stock issue, raising funds through sale of the preferred stock would cost the enterprise 3.06% more than if the funds were borrowed at a 3% interest cost, allowing for taxes.

PRINCIPLES OF DEBT FINANCING.—A corporation that resorts to borrowing should be guided by several basic principles taught by experience:

Business Cycle and Debt Financing.—Past experience has shown that the more vulnerable a company's business is to the business cycle, the greater the need for restraint or caution in the use of debt in financing. Since industrial concerns operate under competitive conditions, the demand for most industrial or manufacturer's products is less stable than, for example, the demand for a kilowatt-hour of electricity. Similarly, the personal equation enters into the management of a manufacturing business to a greater extent than it does in the management of an electric power and light company.

Most corporations will find it advantageous to strengthen their financial position during the prosperity phase of the business cycle by reducing debt and building up cash resources, so paving the way for future expansion. Conversely, expansion can be effected on more advantageous terms during a depression. Some of our most successful corporations have resorted to borrowing to finance expansion during a depression, so that their capacity to produce has been enlarged by the time it is needed to meet prosperity demands.

Long-Term Industry Trends and Debt Financing.—An industry will reflect in its operations its own life cycle, namely (a) promotion, (b) development and expansion, (c) maturity, (d) decline. A concern in the development and expansion stage can resort most safely to bond financing, but in the maturity stage debt should be reduced in preparation for the eventual decline in earning power, when heavy fixed charges may spell bankruptcy. Where an industry faces a declining trend in sales, debt reduction should be the primary objective of management.

Earnings Coverage and Debt Financing.—Primary evidence of the ability of a corporation to employ debt financing wisely is the number

of times earnings cover debt interest charges. The higher the coverage of fixed charges over a period of time, the greater the ability of a corporation to employ borrowing as a means of raising funds.

Amortization and Debt Financing.—Too often corporate management assumes that earning power of the business is assured and hence new debts can be incurred safely. But experience shows it is wiser to provide for partial if not complete debt retirement through the use of sinking funds or serial maturities. The Securities and Exchange Commission has used its authority to require public utility companies to amortize funded debt. The Interstate Commerce Commission belatedly adopted a similar policy for railroads after the depression of the early thirties.

Short-Term Debt

REASONS FOR USE.—Short-term debt is usually incurred for meeting working capital needs, although in some cases its use has been dictated by other reasons such as high money rates or temporary financing of the construction or acquisition of fixed assets. While there is no fixed rule, short-term debt generally means obligations maturing in five years or less.

PROMISSORY NOTES.—Promissory notes characteristically run from 30 days to 6 months and are given to evidence bank loans made for the purpose of financing the various stages of the manufacturing, processing, and distribution of goods. They generally result from borrowing from the banks on an unsecured basis under a line of credit. Promissory notes may also be given other creditors.

As used by bond houses and investors, **notes** are instruments of debt which may have a maturity of anywhere from one to ten years. Corporation notes, when offered publicly, are issued under corporate trust indentures with the same formalities as long-term bonds. They may be issued as unsecured obligations or they may have back of them a mortgage deed of trust. They are frequently secured by collateral, which in many cases consists of the long-term senior obligations of the debtor corporation—either mortgage or collateral trust bonds. It is common practice to pledge as collateral a face amount of bonds in excess of the amount of the loan.

An example of unsecured promissory notes is the issue by Armour & Co. (Illinois) in 1944 of $10,000,000 of 2¼% promissory notes, due serially to 1954. An example of secured promissory notes is the issue of Brown Co. 5% collateral notes, due serially to 1956. A private sale of promissory notes to an insurance company or a commercial bank, as opposed to the public sale of debenture bonds, has the advantages of (1) greater speed, (2) independence of security market conditions, (3) a saving in the federal issuance tax of 11¢ per $100, and (4) a saving in corporate trustee's fees. In addition, the company avoids the cost of registration under the Securities Act of 1933 and the payment of a commission to the investment banker, but it has been argued that a large portion of these savings are absorbed by the lender in a private placement. Moreover, an investment banker often acts in an agency capacity in the private placement operation, for which service a fee is paid by the corporation.

TERM-LOANS.—Tradition dictated that commercial banks make only short-term, self-liquidating loans which were expected to be paid back in full within a year, so that the borrower would be out of debt to the bank at least once during the year. This was considered proof of the fact that the loan was made for seasonal working capital requirements rather than long-term capital needs. In recent years, however, commercial banks have become actively engaged in granting term-loans as a means of satisfying the longer-term capital needs of business.

A term-loan may be defined as an intermediate capital loan running for a period of several years, with provision for full amortization by annual instalments during the life of the loan. The life of the term-loan is most often 5 years, although a life of 10 years is not uncommon. Like most bank loans to business, term-loans are generally unsecured and are evidenced by promissory notes. As contrasted with the straight seasonal commercial loan it is expected that the term-loan will be repaid from earnings, whereas the former will be repaid from the liquidation of assets financed by the loan.

Several reasons account for the fact that commercial banks have substantially increased this type of lending. The most important reasons are (a) changed bank examination procedure—since 1938 the old criterion of liquidity has been subordinated by bank examiners to the test of assurance of ultimate repayment, which assurance is based primarily upon the adequacy of the earning power of the borrower; (b) the increased liquidity of commercial bank portfolios, with an extremely large proportion of their portfolios consisting of cash and government bonds, permitting the making of nonliquid, nonmarketable loans in limited amounts; (c) the ability of commercial banks to borrow readily at low cost from a Federal Reserve bank; and (d) the search for added earnings by the banks to offset the contraction in security and commercial loans and the decline in interest rates. However, practically speaking, only the larger banks have gone into the term-loan field. Moreover, not all of the large banks make term-loans, and there has been some disagreement from the bank viewpoint as to the soundness of term-loans.

Purposes of term-loans are too numerous to mention in detail. They may be incurred for (1) the purchase of equipment or the acquisition of other fixed assets, (2) refinancing of funded debt or revamping of capital structures, and (3) replenishment or increasing of working capital.

In making a term-loan, the bank places most emphasis on earning power in its credit analysis. It wants to be assured of the ability of the borrower to put aside regularly a sum from earnings for the retirement of longer-term debt. As a measure of further protection, the bank will usually insist on the inclusion of restrictive covenants in the loan as (a) protective provisions pertaining to the issuance of additional debt, (b) restrictions on dividend payments, and (c) provisions requiring the maintenance of a certain working capital position. In term-loans to smaller business concerns it is not uncommon to find provisions limiting salaries and bonuses to officers and forbidding a merger or consolidation without the consent of the lending bank.

During recent years, with interest rates at very low levels, large business corporations in particular have found it most economical to make use of the term-loan, often with a larger final instalment called a **balloon**

maturity. Longer-term lending institutions such as life insurance companies and savings banks have found it difficult to compete with commercial banks in lending to industrial corporations. Even where the size of the loan and a long amortization period have prevented commercial banks or groups of banks from granting the entire loan sought, it is common for the banks to take the early maturities (up to 10 years) so as to lower the over-all cost of borrowing to the business corporation. Life insurance companies then take the balance of the loan, consisting of notes with later maturity dates.

In 1945 Socony-Vacuum Oil Co., Inc. negotiated a $50,000,000 10-year loan with a group of commercial banks headed by the New York Trust Co. The loan was evidenced by promissory notes bearing interest at 1⅝% per annum to October 31, 1947, inclusive, and 1¾% thereafter. The notes matured $4,000,000 each October 31 from 1950 to 1954 inclusive, and the balance of $30,000,000 on October 31, 1955. The proceeds from the loan were used to retire the Socony-Vacuum Oil Co., Inc. debenture 7⅞s due in 1955. Similarly, in 1945 the Pure Oil Co. issued $31,000,000 of 20-year serial promissory notes with the first 10 yearly maturities totaling $13,325,000 being taken by the Chase National Bank and the remaining maturities totaling $17,675,000 being taken by the Metropolitan Life Insurance Co.

COMMERCIAL PAPER.—In lieu of direct bank loans, a corporation with a sufficiently high credit standing may sell its single-name paper to banks through commercial paper houses. Such open market commercial paper is usually in the denominations of from $5,000 to $10,000, sometimes as low as $2,500. The total amount borrowed is likely to be in excess of $25,000, and is frequently much larger. The maturity of such paper most often runs from 4 to 6 months, although somewhat shorter and longer maturities are encountered. The notes are made payable to order of the issuer and then endorsed in blank to make them negotiable. Open market commercial paper does not bear interest but is sold at a discount from face value.

The commercial paper house pays the face value of the notes purchased less (a) the going rate of discount and (b) a commission which is likely to be in the neighborhood of ¼ of 1%.

Generally speaking, the following conditions must exist before a business concern can use the commercial paper market to any great extent:

1. The company must have had a record of successful operation for several years, as shown by its earnings.
2. Credit reputation must be soundly established.
3. A strong current financial position must be maintained.
4. The concern must be engaged in the production or distribution of standard commodities as opposed to style or specialty goods.
5. The concern must generally be of medium or large size—net worth is usually $500,000 or more.

The **main advantages** in the use of commercial paper are:

1. Wide distribution of the paper by the dealer enables the borrower to get the advantage of lower rates in those sections of the country where the demand for such paper is high.
2. The borrower in a smaller community can secure large sums, while his local banks are limited by law in the amount they can lend to one customer.

3. The borrower's credit standing is improved by the advertising value of commercial paper which becomes well known and respected. This may prove helpful in the subsequent sale of securities.

Disadvantages in using commercial paper are:

1. The borrowing relationship is strictly impersonal and the maturing paper must be paid, whereas a bank would be more likely to extend maturing notes if required by circumstances.
2. The selling corporation must expect numerous inquiries and investigations from potential buyers of such paper.

At the end of 1920, commercial paper outstanding amounted to approximately $1,000,000,000. In 1930 it stood at $358.000,000, and in 1945 at $159,000,000. By the end of 1951, the total outstanding was $480,000,000. The main reasons for the declining use of commercial paper have been (a) more common financing of working capital needs through selling bonds and stocks, and (b) low interest rates prevailing for bank loans.

PLEDGING ACCOUNTS RECEIVABLE.—Some business concerns find it desirable to borrow money through pledging accounts receivable as security for a loan. For such borrowing, a business will usually apply to a commercial credit or discount company, rather than a commercial bank. The former institutions have special facilities for investigating and supervising this type of loan, whereas many commercial banks regard the procedure as being too expensive for their customary charges. However, some commercial banks have become increasingly active in this field in recent years.

In making a loan secured by accounts receivable, the borrower will enter into a contract with the credit or discount company which will indicate (a) the amount to be advanced upon the pledge of the receivables (usually 75% to 80% of face value) with the right given to the lender to reject receivables tendered, (b) whether notification is to be given debtors of the pledging of their accounts, and (c) the charges to be paid by the borrower.

The terms **notification** and **nonnotification** indicate whether the debtor customers are or are not to be notified that their accounts have been assigned. Under the notification plan, payments are made directly to the finance company, which has received a power of attorney to endorse notes, drafts, and checks in the assignor's name. Under the nonnotification plan, the debtor customer pays the borrowing corporation, which in turn forwards the remittances as they are received to the discount company. In either plan, receivables are not sold to the discount company but merely pledged as security for a loan. Responsibility for collection, as well as for any losses that might be incurred in the process, rests upon the borrower. The amount charged by the discount or credit company commonly runs from 1% to 1½% per month on the face value of the loan.

The **main advantages** to a company in borrowing through pledging its accounts receivable are (a) the immediate cash made available permits an increase in the volume of operations, and (b) the borrower can take advantage of cash discounts and purchase goods for cash where trade credit is not given. **Chief disadvantages** are (a) the company

loses possession of its best receivables, which restricts its ability to obtain current credit from other sources, (b) customers may object to paying a finance company directly or to its collection methods, so that trade may be lost, and (c) the cost is relatively high.

FACTORING.—In this procedure receivables are not pledged but are sold outright to the credit or finance company. The factor buys all of a manufacturer's accounts that he considers to be sound, taking over new accounts receivable as old accounts are paid. Once an account has been purchased, a factor may or may not have **recourse** against the seller in the event of nonpayment, although he always has recourse for returns or allowances for bad goods or errors in pricing. Payments are made directly to the factor, who determines the collection methods. An agent of the factor may be present at the factory or mill of the vendor of the accounts to take care of shipments of merchandise. The rate charged may be as low as ¼ of 1% and as high as 4% of all accounts purchased, depending upon the degree of risk and collection costs. In addition, interest is charged upon any advances made. Factors purchase receivables from manufacturers, merchants, and selling agents in many industries, with the textile trades predominating and furs, hardware, printing, and gloves ranking in lesser importance. A number of finance companies engage both in factoring and in lending on pledged receivables.

Advantages to a company in selling its receivables to a factoring firm are (a) funds are secured to finance an increase in the volume of operations, (b) credit and collection department expenses are reduced or eliminated with the result that a fixed factoring cost is substituted for varying credit losses, (c) larger sales to one customer are made possible since the introduction of factoring eliminates the concentration of risk to the seller, (d) the outright sale of the receivables means that no current liability is incurred to the finance company, making for a "cleaner" balance sheet and a higher credit rating, and (e) the factor may provide valuable advice on merchandising problems.

Disadvantages are (a) the loss of a close relationship with the buyer, who may object to the practices of the factor, (b) possible limitations on sales because of the credit standards of the factor, and (c) the relatively high cost of funds to many concerns, although it should be recognized that part of the cost represents compensation for services, and only a part the cost of borrowed funds.

FIELD WAREHOUSE LOANS.—Certain business concerns, such as those engaged in the storage, processing, and shipment of staples, have found that loans secured by liens on commodities they carry in inventory can be utilized as a source of working capital. "Commodity" loans were formerly secured by one or more of three types of documents, namely, (1) bills of lading, (2) warehouse receipts, and (3) trust receipts. Latterly, many such loans are on a "field warehouse" basis. Field warehousing is a practice whereby warehousing concerns bring their service to the merchant's or manufacturer's own place of business. The warehousing concern takes control of certain space in the borrower's buildings and thus eliminates the expense of moving inventories to a public ware-

house and renting the necessary facilities. The goods are placed under the control of an independent warehouseman who is financially responsible. The issuance of the warehouse receipt by such a concern meets the requirements of the **Uniform Warehouse Receipts Act.** These warehouse receipts are then used by the merchant or manufacturer as security for a bank loan or an acceptance credit.

Bonds

GENERAL CHARACTERISTICS.—Bonds are credit instruments which contain a promise to pay a specified amount of money at a fixed date, usually more than 10 years after issuance, and a promise to pay interest periodically at stated dates. A bond is similar to a promissory note, but it is made out in standard denominations and it is usually negotiable. All the bonds of an issue are generally covered by a so-called **deed of trust** or **trust indenture** made out to a trustee, who holds the indenture for the benefit of all the bondholders. Violation of any of the terms of the indenture enables the trustee to take remedial action, in accordance with its terms or pertinent statutes.

The chief characteristics of bonds are given below.

DENOMINATION.—Most bonds are of $1,000 denomination but are also encountered in denominations of $10,000, $500, and $100. Denominations under $1,000 are called small pieces or baby bonds. Corporations may make provision for the issue of larger denominations in multiples of $1,000, and may make the smaller denominations exchangeable for the larger. Although the amount of a bond is printed on the certificate, it is common practice to indicate the denomination by a letter prefixed to the serial number of the certificates, as M for $1,000. Corporations do not favor the issuance of denominations smaller than $1,000 on account of the expense of providing a greater number of engraved certificates and the fees charged by trust companies for making exchanges when various denominations are interchangeable. Transfer agents for bond issues, in addition to charging a minimum sum for their services, exact under certain conditions a fixed fee for each bond certificate registered or transferred.

To investors the objection to low denominations is the nonacceptability of small pieces by purchasers and the rules of the security exchanges or the customs of bond dealers. Under the rules of many stock exchanges, bonds in denominations under $500 are not a "good delivery," and their acceptance may be refused by the purchaser. It is the general practice of corporations to agree in the trust indenture to convert small pieces into larger denominations at the option of investors, but in a number of issues small or unusually large denominations, once issued, are not convertible into other denominations. The interchangeability of denominations of any bond issue publicly dealt in can be determined from bond descriptions contained in such reference books as Standard and Poor's and Moody's Manuals and the Fitch Bond Book.

FORMS OF BONDS—COUPON BONDS.—Bonds may be issued in either of two general forms—(1) coupon bonds, and (2) registered bonds.

Coupon bonds are negotiable to bearer, and therefore are also called bearer bonds. The attached coupons represent claims for periodical interest on the successive dates indicated. The coupons are promissory notes payable to bearer, and a bona fide purchaser before their maturity is protected in the same way as in the case of the discount of other negotiable instruments.

The great bulk of corporation bonds are in coupon form of the denomination of $1,000. Their popularity is due to the ease of negotiating and transferring them, inasmuch as ownership passes by mere delivery. Accordingly, coupon bonds may not be easily recovered if lost. No claim can be made against a corporation if, without receiving previous notice of the loss, it has paid interest or principal on lost bonds to one not entitled to receive them. Corporations will duplicate lost or destroyed coupon bonds and the trustee will authenticate them if the bondholder gives satisfactory evidence of the loss or destruction and furnishes a bond of indemnity for the amount the company and trustee may require. Provision for the issuance of bonds to replace lost or destroyed bonds is made in the trust indenture.

REGISTERED BONDS.—Registered bonds are bonds payable to the parties whose names appear on the face, and are recorded in the bond register or transfer books kept by the company and its duly authorized transfer agent or registrar. They are transferable only when notation of the transfer has been made on the bonds themselves and entry has been made on the bond register.

Bonds may be registered as to both principal and interest, in which case they are called **fully registered bonds;** or they may be registered only as to principal and thus be only partly registered bonds. The denomination of fully registered bonds is usually $1,000, $5,000, or $10,000. As they are without coupons, interest is paid to the registered holder by check.

Bonds registered only as to principal, or as they are at times called, registered bonds with coupons, are payable only to the registered holders so far as the principal is concerned, but the interest is paid upon the presentation of the attached coupons. The bond certificate has a form for entering the date of registration, the name of the registered owner and the signature of the registrar or transfer agent. As transfers of the bond are made, these entries are repeated on the bond certificate as well as on the registration record of the company or its transfer agent. This type of registered bond can be converted into an unregistered coupon bond by simply entering "bearer" and recording it in the bond register. Coupon bonds may be made interchangeable with the fully registered type, in which case a new certificate may be issued, or the coupons may be detached and the old certificate used. Not infrequently, when a number of coupon bonds are exchanged for fully registered bonds, that fact and the serial numbers of the coupon bonds turned in are noted on the new certificate. Interchangeability of bonds is specified in the trust indenture. When indentures authorize fully registered bonds and the exchange of denominations, the corporation is permitted to make a charge for any transfer or exchange involving the issuance of a new certificate, generally not over $2. Most trust indentures provide for the issuance of registered bonds with coupons as well as unregistered coupon

bonds. Fully registered bonds are commonly issued where the bonds run for long terms and appeal to institutional investors and trustees.

TERMS OF PAYMENT.—Bonds and interest coupons, in order to be negotiable instruments, must be made unconditionally payable in a fixed sum of money. The type of money may be designated in the bond. It may be made payable in (1) legal tender currency, (2) gold coin, or (3) foreign currency. A bond can also be made payable, both as to interest and principal, in two or more currencies either at a fixed rate of exchange or at the prevailing rate when the interest or principal matures. Foreign currency bonds are issued in foreign countries and are subject to the laws and regulations of the respective governments of these countries. Prior to World War I, it was the practice of large American corporations, particularly railroads, to issue bonds payable in sterling or French francs as well as in dollars, in order to afford a market for their securities in Europe, but this has since been generally discontinued. When bonds are payable in the currency of the United States, any legal tender may be used in payment.

BONDS PAYABLE IN GOLD.—Bonds issued by both governments and business corporations before June, 1933, were generally made payable, both principal and interest, "in gold coin of the present standard weight and fineness." This provision, used since the Civil War era, was designed to protect holders against devaluation or currency depreciation due to abandonment of the gold standard. By joint resolution of Congress approved by the President June 5, 1933, this clause was rendered null and void, not only with respect to future obligations but also with respect to all outstanding obligations whether issued by public bodies, including the United States government, or by private persons, including corporations. The resolution declared that "every obligation heretofore or hereafter incurred . . . shall be discharged upon payment, dollar for dollar, in any coin or currency which at the time of payment is legal tender for public and private debts." The United States Supreme Court upheld the constitutionality of this joint resolution.

INTEREST PAYMENTS.—With relatively few exceptions, interest on bonds is paid semiannually, usually on the first or the fifteenth day of the month. A corporation may make the interest payable at its own office, but when the size of the issue warrants and the bonds bear coupons, it designates one or more paying agents, usually the trustee under the trust indenture of the bonds, at whose office the interest as well as the principal is payable. The name and location of the office of the paying agent or agents appear on the face of the coupon. Interest on bonds which are registered as to both interest and principal is generally paid directly by the debtor corporation, but a paying agent may be employed in such cases also.

The New York Stock Exchange requires that the paying agent of bonds listed on the exchange be located in the Borough of Manhattan, New York City. Other stock exchanges also require a local paying agent, which may require a corporation to have paying agents in more than one city. The paying agents or places of payment may be changed during the life of a bond issue. Coupons are not invalidated by the fact that the interest is made payable at a place other than that designated on their face.

TAX-FREE COVENANTS.—Tax-free covenants included in bonds are in general of two types: (1) a covenant providing that interest shall be paid without deduction (up to a specified limit) for any amount required to be deducted as a payment of the federal income tax at the source, or (2) a covenant to reimburse (within a specified limit) the bondholder for any federal income tax required to be paid on interest received. The specified limit in each case is usually stated to be 2%.

Under present federal income tax laws, the withholding requirement is applicable only (1) if the bond was issued before Jan. 1, 1934; (2) if the bond contains a tax-free covenant under which the obligor has agreed in respect of the federal income tax on interest to (a) pay such tax, or (b) reimburse obligee for such tax, or (c) pay interest without deduction for any federal income tax the issuer is required to retain; and (3) if the interest is payable to an individual, partnership, or a foreign corporation not engaged in trade or business within the United States.

In the case of a bond issued subsequent to Jan. 1, 1934 and containing a tax-free covenant providing for reimbursement to a bondholder of federal income tax paid by the bondholder, domestic corporations are not excluded from the covenant's benefits. Questions as to the right to reimbursement and the time for making claim are matters of contract rather than of tax law.

Bonds are also issued with covenants which provide for refunding to bondholders personal property and income taxes levied by states on the bonds. Among the state taxes most frequently mentioned are the Pennsylvania four-mill tax, which is a tax of $.004 on the face value of corporate loans and other intangibles, the similar Connecticut tax, and the Massachusetts 6% income tax on securities.

CALL FEATURE.—A bond issue may be made redeemable before maturity in whole or in part. If so, redemption is at the option of the issuing corporation, unless there is a provision for a sinking fund which makes a periodical "call" compulsory. The advantage to the debtor corporation of the **optional call** lies in the flexibility which such a provision adds to the company's capital structure. Thus, if a corporation's bond issues are made callable, the effect will be to permit their elimination from the capital structure if conditions change and sound corporate financial policy dictates that such action be taken. The call privilege has been used advantageously by corporations for the purpose of (a) eliminating bond issues with unfavorable indenture provisions, (b) replacing short-term obligations with long-term obligations, or vice versa, (c) reducing debt, and (d) refunding high coupon bonds with low coupon bonds if interest rates decline.

The last-named advantage, refunding to effect interest savings, has proved to be of extreme importance in recent years, and many corporations have refunded three and even four times as interest rates have steadily declined. Corporations that found themselves with noncallable issues lost this opportunity to effect substantial interest savings through refunding. Most bond issues now contain a call provision. In a seller's market particularly, it is not necessary to make bond issues noncallable in order to improve their salability.

Callable bonds are less satisfactory to investors than noncallable bonds due to (1) their uncertain life, and (2) the fact that unless holders

Notice of Redemption

OF A PART OF OUTSTANDING FIRST MORTGAGE BONDS BEFORE MATURITY

to the Holders of

THE OUTSTANDING FIRST MORTGAGE FIVE PER CENT BONDS OF

THE MOUNT HOPE BRIDGE CORPORATION

SECURED BY ITS MORTGAGE DATED JUNE 15, 1932

NOTICE IS HEREBY GIVEN by the Mount Hope Bridge Corporation that it has exercised its option to redeem a part of its outstanding First Mortgage Five Per Cent Bonds on the fifteenth day of December, A. D. 1945, such bonds so to be redeemed being in the principal amount of $80,000.

In accordance with the provisions of said mortgage Mount Hope Bridge Corporation has notified the Rhode Island Hospital Trust Company as trustee under said mortgage, of its intention to redeem such bonds and has requested the said trustee to proceed to draw by lot bonds in the principal amount of $80,000, and such trustee has drawn such bonds by lot for redemption in accordance with the provisions of said mortgage.

The distinguishing numbers of the bonds so drawn are as follows, namely:

X—22; 25.
M—5; 7; 44; 65; 66; 73; 119; 123; 137; 185; 215; 284; 320; 332; 365; 449; 450; 494; 501; 536; 539; 561; 590; 611; 614; 620; 630; 657; 691; 695; 713; 714; 718; 745; 752; 786; 807; 809; 814; 820; 843; 844; 854; 864.
D—21; 27; 29; 40; 51; 102; 155; 164; 167; 170; 184; 196; 212; 220; 221; 274; 307; 313; 329; 342; 352; 376; 384; 407; 432; 443; 481; 484; 485.
L—10; 15; 21; 39; 49; 74.

The bonds bearing such distinguishing numbers will be paid for at the rate of 102 per centum of the par of said bonds, together with accrued interest to December 15, 1945. Holders of said bonds are notified to present them for payment at the principal office of the trustee, Rhode Island Hospital Trust Company, at #15 Westminster Street, Providence, Rhode Island, or at the principal office of the Commercial National Bank and Trust Company of New York, 46 Wall Street, New York City, New York—on the fifteenth day of December, A. D. 1945, on which day all interest on said bonds will cease. Bonds so presented must have the coupons due on December 15, 1945, and at dates subsequent thereto, attached to such bonds.

MOUNT HOPE BRIDGE CORPORATION
By R. F. Haffenreffer,
President

FIG. 1. A Typical Redemption Notice

carry callable bonds in registered form, they may not see the notice of the bonds being called for redemption and may lose interest on their investment until they are apprised of the fact of the call, which may not be until they attempt to collect the next coupon. Callable bonds are therefore made callable at a premium to compensate the holder for the loss of his investment. The call or redemption price is usually fixed slightly in excess of the face value, ranging from 102½% to 110%, the exact premium depending on the life of the particular bond issue, its original offering price, and the bargaining power of the lender and borrower. The call price is gradually reduced as the bonds approach maturity to enable the corporation to retire or refund the bonds in advance of maturity without having to pay too large a premium. Usually, if called within the last year or 6 months before maturity, they are redeemable at par. However, the lender will insist that the call schedule provide a certain number of basis points protection. Thus, it has been common in the sale of 30-year utility bonds to offer the buyer about 15 basis points protection, that is, if a 30-year 3% bond issue was offered at par, or on a 3.00% basis, to scale the redemption premiums downward so that each redemption price will represent approximately a 2.85% basis to maturity.

Bonds subject to redemption may be callable immediately from the date of issue or not until after the lapse of a number of years. In the latter case, investors are assured that their commitments will remain undisturbed for a specified period. (Thus, the Bell Telephone Co. of Pennsylvania first and refunding "C" 5% bonds, due 1960, are not callable until October 1, 1957, when they become callable as a whole at par on 60 days' notice.) The market price of bonds that are immediately callable seldom rises more than one or two points above the call price, as investors are unwilling to take the risk of losing the difference between a higher market price and the call price. On this account, bonds that are not callable at all before maturity and bonds that are callable only after the lapse of several years tend to sell higher, other things being equal, than issues which are already subject to redemption.

The **method of redemption** is described in the bond indenture. The usual stipulation is that notice of the redemption of callable bonds be given bondholders through publication in the press from 30 to 90 days prior to the redemption date. If the corporation elects to pay off only a portion of the issue, about 10 days or so before first publication of the notice it notifies the trustee of the aggregate amount of bonds to be redeemed. The trustee then proceeds, in the presence of a representative of the corporation, to draw by lot the numbers of the bonds to be redeemed. These numbers will appear in the public notice of redemption. One form of redemption notice is shown in Fig. 1.

Bond Indentures

THE NEED FOR THE BOND INDENTURE.—The corporation bond is legally defined as "a promise to pay under seal," the amount promised being the par value of the bond. As the courts have held that the seal may be represented by the mere signature of the corporation, the essential form of the bond does not differ materially from an ordinary promissory note. Yet the formal document or engraved certificate con-

stituting the bond is something more than a mere promise to pay a definite sum on a fixed or ascertainable date. It is an evidence of "a right to participate in a certain legal contract—the trust indenture which the corporation enters into with a trustee." (Dewing, Financial Policy of Corporations.) The **trust indenture,** also known as the **deed of trust,** is in the form of an agreement between the corporation and a trustee or trustees which represent the bondholders.

Though the bond certificate and the trust indenture are separate documents, the law construes the two as one instrument, particularly when there is reference in each instrument to the other, as is generally the case. The face of the bond usually recites that it is issued under the terms of a specific trust indenture and bears, in addition to the signature of the corporation, an authentication or certification by the trustee to the effect that it is one of the series covered by the trust indenture. The text of the bond is in turn reproduced in the trust indenture.

The trust indenture has become a practical necessity in corporate long-term borrowing, largely because of its convenience in fixing the rights and privileges of the bondholders, and the rights, privileges, and liabilities of the debtor corporation. Since the holders of most corporation bonds are unknown to the debtor corporation and to one another, they would, without the indenture and the corporate trustee, be under the necessity of acting individually to enforce their respective rights. It is true that the corporation might (in a manner similar to borrowing on a real estate mortgage) issue the mortgage to each of its bondholders, but when one considers the length of the typical corporate mortgage (perhaps as long as 300 pages or more), it is obvious why the corporation does not follow such practice. A more important reason for not following such a procedure is the fact that the corporation would be exposed to the risk of innumerable actions at law due to varying interpretations of the bond and mortgage contract by the different bondholders. When bonds are issued under a trust indenture, the trustee, as one of the parties to the indenture, represents the bondholders collectively and deals directly with the corporation in their behalf. In other words, by use of the indenture device, the corporation is enabled to deal with a large group of persons as if they were one.

Although the above discussion refers to a corporate mortgage, it should be pointed out that while every corporate mortgage takes the form of a deed of trust or trust indenture, not every trust indenture is a mortgage. When a corporation issues unsecured bonds or debentures, the covenants and promises it makes are usually contained in a trust agreement with the trustees for the benefit of these unsecured bondholders. These covenants and promises are similar to the protective provisions required in short-term borrowing as set forth in a loan agreement or on the face of the promissory note itself.

GOVERNMENT AND MUNICIPAL BONDS NOT ISSUED UNDER A TRUST INDENTURE.—Contrary to the usual practice of appointing a trustee to represent bondholders in the case of corporations, civil obligations, such as national, state, and municipal bonds, are not generally issued under the terms of a deed of trust. Accordingly, each individual holder of this class of securities may act singly and without the knowledge and cooperation of the other holders to protect his rights and

privileges. The constitutions, statutes, and ordinances under which civil loans are authorized and issued are the groundwork upon which the protection of those holding civil obligations rests. When these bonds are legally issued, such legislation defines the rights and privileges of the bondholders and the duties and obligations of the debtors with much the same legal effect as would a trust indenture.

A municipal bond commonly bears upon its face a reference to the statutes and ordinances authorizing the obligation and a recital to the effect that all "acts, conditions, and things required to be done, precedent to and in the issuance of this bond, have been properly done, happened and been performed in the regular and due form as required by law." As stated by Dillon (Commentaries on the Law of Municipal Corporations), in what is now termed Dillon's Estoppel Clause: "If a municipal corporation having general authority to issue bonds for specified purposes puts forth a negotiable municipal bond issued for a lawful purpose, and therein recites, through its authorized officials, whose province and duty it is to ascertain and peculiarly to know the facts, compliance with the specific provisions of the law essential to the issuance of the bond, the municipality is, as against a bona fide holder of the bond, purchasing for value, and on the faith of the recitals, estopped to deny the truthfulness of the recitals."

CORPORATE TRUSTEES.—At present the trustees named in trust indentures under which corporation bonds are issued are generally banks or trust companies. Originally it was common practice for individuals, generally two, to act in this capacity. Several states still require that at least one individual, a resident of the state, be appointed a trustee if the corporation's property is located there. Thus, a deed of trust may have both an individual and a corporate trustee. In the event of the death of the individual trustee, the corporate trustee may appoint a successor. The corporate trustee is generally selected either by the debtor corporation, or by the bankers to whom the bond issue is sold, or jointly by both. Trustees acknowledge in the trust indenture their acceptance of the trust.

Where there is an **individual co-trustee,** in order to enable the corporate trustee to transact business in the absence of the individual trustee, the latter is usually permitted to appoint the corporate trustee as his attorney in fact, and it is not infrequently the practice for him to execute this power of attorney at the very outset, with the result that the bank or trust company may in effect be the sole trustee. Even where the appointment of an individual co-trustee is not provided for in the trust indenture, it is usual to stipulate that such appointment may be made by the joint action of the debtor corporation and the corporate trustee. The need for this may arise in the event that it should be necessary to take action in a state which prohibits the execution of trust functions by foreign corporations.

The chief duties of the trustee are the following:

Certification of Bonds.—In the absence of default by the debtor corporation in the provisions of a trust indenture, the principal duty of the trustee is the authentication or certification of the bonds, barring certain functions under mortgage deeds and collateral trust indentures. The bonds are delivered to the trustee for authentication after they have

been executed by the president or vice-president of the issuing company, under corporate seal attested by the secretary or an assistant secretary of the corporation. Authentication consists in affixing its signature under the following statement on the bond certificates:

> "This bond is one of the bonds described in the within mentioned deed of trust.
>
> ..... Trust Company
> by .....
> Trust Officer"

The trustee does not guarantee the validity of the obligation by such authentication or certify that the bond has been issued according to required legal formalities or in accordance with the charter requirements of the corporation. It is merely a certification that the bond is one of the issue provided for and described in the trust agreement and entitles the holder to the benefits of the provisions of the trust indenture. Bonds not bearing such authentication by the trustee are not valid under the trust agreement. In this way some protection is afforded against over-issue or forgery of the bonds.

Bonds are authenticated whenever they are issued whether at the outset, upon the creation of the debt, or later as transfers or exchanges of denominations or forms of bonds are made. The indenture provisions stipulate the circumstances under which the trustee may or must authenticate bonds submitted to it by the corporation. Upon receiving bonds from the company for authentication, the trustee examines them to see if they conform in all particulars, except as otherwise stipulated in the indenture, with the text of the bond reproduced in the indenture.

Mechanical Duties.—Indentures commonly require the trustee to handle the details of sinking fund payments, bond redemptions, and interest payments. Similarly, when the trust indenture contains a mortgage or a pledge of collateral, the trustee is required to attend to the safe custody of the pledged property.

To Enforce the Terms of the Indenture.—The trustee is expected to take action to protect bondholders in the event of default in the payment of interest or principal, or the violation of some other covenants of the indenture. For specified types of default, action is compulsory; for others the trustee has discretion. The indenture may provide for reimbursement of outlays incurred in taking protective action. The Trust Indenture Act requires the trustee to see that the corporation performs its obligations and to notify bondholders of any default. The Trust Indenture Act provides that the trustee should proceed to exercise such rights and powers vested in it with the same degree of care and skill as would be exercised by a **prudent man** under similar circumstances in the conduct of his own affairs.

TRUST INDENTURE ACT OF 1939.—This Act was enacted by Congress for the protection of holders of corporation bonds. Too often, issuing corporations had failed to provide an independent trustee capable of protecting and enforcing the rights of bondholders. Conflicting interests such as interlocking directorates involving the trustee and the issuing corporation existed in some cases. Also, it was felt that certain

trust indentures were not drawn to give adequate protection to bondholders, being replete with exculpatory clauses relieving the trustee from the need of taking effective action to protect bondholders' interests. The Act required that the indenture contain standard protective provisions, that the essential provisions of trust indentures be more completely disclosed to security holders, and that responsible, disinterested trustees be selected in each case.

The Trust Indenture Act provides in substance that if debt securities (bonds, notes, and other evidences of indebtedness) to be issued under an indenture must be registered under the Securities Act of 1933, such registration will not become effective unless (a) the indenture meets the requirements of the Trust Indenture Act, (b) the registration statement contains certain information with respect to the qualifications of the trustee, and (c) the registration statement and the prospectus contain an analysis of the important provisions of the indenture. The Trust Indenture Act also applies to debt securities issued in exchange for other securities of the same corporation under a voluntary readjustment plan or under a reorganization plan approved by a court, which securities may not be required to be registered under the Securities Act.

To be **qualified** under the Act, an indenture must contain certain provisions, the most important being the following:

1. A **financially responsible** corporate trustee must be named and the interests of trustee must not conflict with those of the indenture security holders. One of the trustees must be a corporation with capital and surplus of not less than $150,000 and it cannot be affiliated with the issuer or underwriter.

2. In a situation where certain defined **conflicts of interest** arise, such as would exist where (a) the trustee is acting under another indenture of the same issuer, or (b) the trustee or its officers are affiliated with the issuer or the underwriter, then the trustee must either resign, remove the conflicting interest, or notify security holders and let them exercise their defined powers of removal.

3. The indenture terms must require the corporation to furnish a **list of bondholders** to the trustee at stated intervals, which lists must be made available by the trustee to individual bondholders upon demand.

4. The trustee must be required to submit an **annual report** to bondholders indicating the nature of any advances made by the trustee to the corporation; the condition of the property held in trust—releases, substitutions, etc.; and other relevant matters such as the continued ability of the trustee to function in a disinterested capacity. See Fig. 2 for an example of the trustee's report.

5. The indenture must require the corporation to furnish the trustee with (a) evidence of **recording** the indenture, (b) a **certificate of fair value** prepared by an independent engineer, appraiser, or other expert, as to the fair value of property or securities released from the lien of the indenture, and of securities or property to be used as the basis of the issuance of additional securities, the withdrawal of cash, or the release of other property or securities subject to the lien of the indenture, and (c) annual and special reports.

6. The indenture must require the trustee to notify the bondholders of all **defaults** within 90 days.

CHEMICAL BANK & TRUST COMPANY

165 Broadway

New York 15, N. Y.

October 31, 1945.

To the Holders of
ALABAMA POWER COMPANY
First Mortgage Bonds, 3½% Series due 1972

As Trustee under the Indenture, dated as of January 1, 1942, under which the above-named Bonds are outstanding, we submit the following as our Fourth Annual Report to Bondholders. The information contained in this report has been compiled, and this report is made, as of September 15, 1945.

1. To the best of our knowledge we continue to be eligible and qualified, under Sections 7.13, 16.01 and 16.14 of the above-named Indenture to serve as Trustee.
2. No advances made by us as Trustee, for the reimbursement of which we claim or may claim a lien or charge prior to that of the Bonds on the trust estate or on property or funds held or collected by us as Trustee, remain unpaid.
3. No other indebtedness of the character referred to in, and not excepted by, Section 8.04(a) (3) of the Indenture is owing to us in our individual capacity by Alabama Power Company.
4. The only properties or funds physically in our possession as Trustee are funds in the amount of $18,685.02, which represent the proceeds of property released and the net proceeds of property sold pursuant to court decree as indicated in 5 below. There are no properties or funds physically in the possession of a depositary for us as Trustee.
5. Since September 15, 1944, there have been two releases of property having a total value, as shown by the release papers, of $15,981.23 and one parcel of property was sold pursuant to court decree for which the court fixed a value of $2,703.79. Funds in said amounts have been deposited with, and are held by, us as Trustee, as shown in 4 above.
6. No additional Bonds have been issued under the Indenture since the original issue of $80,000,000 aggregate principal amount thereof.
7. Because the Treasury Department has discontinued the requirement of ownership certificates in certain cases, it may be necessary for Bondholders who wish to continue to receive the Trustee's Annual Report to file their names and addresses with the Trustee for that purpose. Such names and addresses will be preserved for a period of two years after such filing.

Respectfully submitted,

CHEMICAL BANK & TRUST COMPANY
as Trustee,

by Howard B. Smith,
Vice President.

FIG. 2. A Trustee's Report to Bondholders

7. The debenture must provide that in the event of default the trustee must exercise his defined powers and rights with the same degree of care and skill that a **prudent man** similarly situated would exercise.

8. The indenture must provide that if a **trustee becomes a creditor** of the obligor within 4 months prior to default or after such default, the trustee must set apart and hold in a special account for his benefit and the benefit of the bondholders any payments or property received in settlement of the account. which amounts will be subject to apportionment by the court of jurisdiction.

It is interesting to note that the indenture may provide that holders of not less than a majority of the outstanding securities may consent on behalf of all the security holders to the waiver of any past default. It may also provide that holders of not less than 75% of the securities outstanding may consent on behalf of all the security holders to the postponement of any interest payment for a period not exceeding 3 years from its due date. However, it is not standard practice to include such provisions in qualifying indentures under the Trust Indenture Act.

The Trust Indenture Act is administered by the Securities and Exchange Commission, but the Commission's only function is to see that the terms of each indenture conform to the prescribed standards. Application for qualification of indentures must be filed with the Securities and Exchange Commission. The Commission has no powers with respect to the enforcement of the provisions of the indenture. After the indenture has been executed it is enforceable only by the parties, like any other contract. However, the Trust Indenture Act obviously widens the basis for action by bondholders against the trustee for negligence and misfeasance, and places additional expense and responsibility on the corporation.

Provisions of a Bond Indenture

SUMMARY OF CONTENTS.—The character of the provisions set forth in a trust indenture will depend on (a) whether the bond issue is secured or unsecured, and (b) the circumstances surrounding each individual issuing corporation. The main contents of the typical corporate trust indenture may be summarized as follows:

1. Names of the parties and the preamble.
2. The consideration and grant or the assignment in trust.
3. The conditions governing the issuance of the bonds, including (a) limitations in amount and (b) conditions of (1) certification and delivery, (2) registration, and (3) interchange of the bonds.
4. Definition of terms used in the indenture.
5. Particular covenants of the indenture.
6. Provisions as to pledged bonds and stocks.
7. Provisions relating to redemption of bonds.
8. Remedies of trustee and bondholders.
9. Releases of property.
10. Consolidations, mergers, and purchases affecting the borrowing corporation.
11. Possession prior to default, and defeasance.
12. Provisions concerning the trustee.
13. Miscellaneous provisions.
14. Execution, acknowledgment, recording, affidavits of good faith, etc.

Each of the above provisions, if not already covered or considered subsequently, is discussed immediately below.

NAMES OF THE PARTIES.—The parties to an indenture are the debtor corporation and the trustee. The corporate name of the company and of the trustee are required to be stated fully. The state of incorporation of the company is mentioned, and whether it was organized under general laws or created by special charter, or consolidation or merger, or otherwise. If there is an individual as a co-trustee, his name is mentioned as a party to the agreement.

THE PREAMBLE.—The preamble sets forth: (1) the purposes of the indenture; (2) the preliminary corporate proceedings that have been taken to meet the legal requirements for entering into the agreement, such, for example, as directors' and stockholders' meetings, the passage of the necessary resolutions, and the like; and (3) the form of the bonds, coupons, and trustee's certificate or authentication of the bonds.

GRANT OR ASSIGNMENT OF TRUST.—This section of the trust indenture comprises a description of the mortgaged property, if the indenture is a mortgage deed of trust, and other collateral or covenants made for the protection and benefit of the bondholders. The mortgaged property is described in sufficient detail to be identified, and the mortgage is made a record lien. Stock-in-trade and other personalty are usually excepted from the mortgage, to permit the debtor corporation to sell, exchange, or otherwise dispose of such assets without hindrance. Statutes in nearly all states disallow the mortgaging of stock-in-trade left in the custody of the mortgagor. Moreover, as stated by Stetson, it is generally impracticable to give a satisfactory lien on movables, if they are liable to pass out of the jurisdiction in which the mortgage is recorded or filed as a chattel mortgage. As to railroads, the statutes of many states declare that rolling stock and other appurtenant chattels are real estate for mortgage purposes. If future-acquired property is to be included in the mortgage, this is definitely stated. Likewise, if the company possesses or exercises any franchise, exclusive of its right to be a corporation, this may be brought under the lien.

Following the granting clauses, it is usual to list the property excepted from the mortgage and to refer to any prior liens.

CONDITIONS GOVERNING THE ISSUE OF BONDS.—The authorized amount of the bonds to be issued, if such authorized amount is fixed at a definite sum, is generally stated in the trust indenture, as well as the amount to be immediately issued. In many cases nowadays, corporations do not limit the amount of their bond issues to a definite sum, but employ other means of limiting the issue of indebtedness. When additional bonds may be issued under specified restrictions, the trustee must be assured by certified statements of the proper officers of the company that the prescribed conditions for additional issues are present. Moreover, if an issue of bonds has been limited to expenditures of a restricted character, such as the acquisition of property or for improvements and betterments, the trustee may hold the funds until certification is made to it that the expenditures have been effected. The purposes for which bonds are authorized for issuance in the future are usually stated in the indenture.

Specification is also made as to variations in the forms of bonds, their denominations, interest rates, conversion privileges, sinking fund provisions, rights of redemption, and the like.

PARTICULAR COVENANTS OF THE INDENTURE.—This section of the trust indenture contains the covenants of the debtor corporation, among which are the following standard covenants:

1. That it will pay the principal and interest of every bond authenticated by the trustee at the dates, places, and in the manner mentioned in the bonds or coupons.
2. That it will designate an office or agency in a particular city or cities where the bonds and coupons may be presented for payment.
3. That it has good title to any mortgaged property and that it will defend the title.
4. That it will keep any mortgaged property in proper repair, making such renewals, replacements, additions, betterments, and improvements as may be necessary for the profitable conduct of the business, and that it will generally do nothing that would impair the lien of the bonds.
5. That it will keep the mortgaged premises properly insured against loss from fire or other cause. (The proceeds of any such insurance, if exceeding in any case of loss a stated figure, as for example, $5,000, is to be paid to the trustee which will pay it to the company as the destroyed property is replaced or additions or betterments equal in value to the destroyed property are made to other portions of the mortgaged property. The insurance policies may be deposited with the trustee as in the case of ordinary real estate mortgages, or the more recent practice may be followed of submitting to the trustee an annual statement of the policies in force.)
6. That it will pay all taxes and assessments levied upon its property, franchises, or income.
7. That it will maintain its corporate existence and its right to do business.
8. That it will properly record the mortgage and pay any necessary fees.

Other covenants contained in this portion of the indenture may require the corporation not to create any debt having priority of lien upon the trust estate; not to increase any outstanding issue of bonds having such priority of lien; and not to extend the time of payment of any such bonds but to pay them at or before their maturity. There may also be a covenant forbidding the corporation to permit any mechanics', laborers', or other **statutory lien** to remain outstanding upon the pledged property which might or could be held to be prior to the lien of the indenture.

Additional covenants may require the company to maintain a sinking fund for the retirement of the bonds; to maintain a replacement fund for the protection of the mortgaged property; to meet certain prescribed conditions before paying dividends on capital stock; and to maintain certain minimum working capital requirements.

REMEDIES OF TRUSTEES AND BONDHOLDERS.—The trust indenture provides for the remedies that may be exercised by the trustee and bondholders in the event of a breach or default in any of the conditions laid down in the trust agreements. These "events of default," as they are called, may include any default under a trust inden-

ture having priority of lien to the indenture in question. The remedies under the indenture also become available in case the corporation remains adjudged a bankrupt for a stated number of days, or has instituted proceedings to be adjudged a voluntary bankrupt, or has made an assignment for the benefit of creditors, or a receiver has been appointed to liquidate and wind up its affairs, and the court order making the appointment has remained in force undischarged or unstayed for a stated number of days.

The usual principal remedies which the trust agreement provides for are:

1. The **right of entry**, or the right of the trustee to take possession of the mortgaged property and operate it for the benefit of the bondholders, applying the net earnings to the payment of the interest or principal. When the default has been made good, the property passes back to the corporation.
2. The **right to sell** the property to the highest bidder without suit.
3. The **right to foreclose** the mortgage and dispose of the property under judicial sale.
4. The **right to bring suit** for the specific performance of any covenant or agreement or for the enforcement of any other legal or equitable remedy.
5. The **right to declare the principal due** before the stipulated maturity date and to recover judgment against the company for the amount due and in case of the sale of the mortgaged property to recover judgment for any unpaid portion of the debt.

The trustee can exercise the stipulated remedies in its discretion, or it may be forced to take action by the written request of the holders of a stated proportion in amount of the bonds, ranging from 10% upward, provided it is guaranteed indemnity for all expenses it may incur in taking such action. Ordinarily, the trustee does not act unless it is requested by bondholders, usually as represented by a protective committee. Since 1939, however, the Trust Indenture Act has required more direct action by the trustee under indentures written under that Act because of the "prudent business man" test imposed.

Some of the remedies given the trustee are rarely exercised. Thus, the right to enter and take possession of the property of the debtor concern is avoided by the appointment under the bankruptcy statutes of a receiver or trustee to take charge of the assets and business of the corporation. Similarly, the right to dispose of mortgaged or pledged property without a suit of foreclosure is rarely exercised, since it is usually preferable to have the sale conducted under the supervision of the court, especially when there is a multiplicity of interests involved, as in a reorganization of a large corporation.

PERIOD OF GRACE.—Except for default in payment of the principal when due, the debtor corporation is granted a period of grace, ranging from 30 days to 6 months, in which no action on the default can be taken by the trustee. In the case of default in payment of interest, the default begins to run from the date the interest is due. In the case of other defaults, it may be provided that the period of grace begins to run from the date the trustee gives the corporation written notice of the default, as stipulated in the indenture. The giving of this notice may be made by the trustee on its own motion or may

be requested by holders of a certain proportion in amount of the bonds. A default in the payment of principal or interest automatically comes to the attention of bondholders, but news of other defaults can only be communicated to them by the trustee, which notice must be given to bondholders by the trustee as required by the Trust Indenture Act. These other defaults (aside from sinking fund defaults) are in many cases simply technical in nature, and not too important from a business or financial viewpoint.

ACCELERATION OF MATURITY IN CASES OF DEFAULT.—As the agreements to pay interest periodically and to pay principal when due are regarded as independent covenants, it is generally provided that in the event of any defaults in the covenants by the debtor corporation, the principal of the debt becomes immediately payable. This acceleration of the payment of the principal is necessary in order to afford the bondholders the right of immediate foreclosure. Without such right, the only remedy is to foreclose for the instalment of interest immediately due.

INDIVIDUAL ACTION OF BONDHOLDERS.—The indenture will provide that suits for the application of remedies in case of defaults may be brought by individual bondholders only if the trustee, after it has been requested in writing by a stated proportion in amount of the bondholders and has been offered indemnification for any expenses it may have to pay, refuses or neglects to take action.

The courts, however, have generally held that refusal of action on the part of the trustee to enforce remedies in behalf of bondholders because a sufficient proportion of them have not requested the action does not bar them from their equitable rights. Suits may be brought by a bondholder individually. In the case of Hubbard v. Galveston, H. & S. A. R. Railway Co. (U. S. Circuit Court of Appeals, 5th Circuit, 200 Fed. 504), the court made the following statement regarding individual action by bondholders to protect their rights:

> It is contended by defendants, in support of their general demurrers that the remedies provided in the mortgage were embodied therein for the protection of the bondholders as a class, expressly made subject to the control of the holders of a majority in amount, and plaintiffs, being minority bondholders, cannot maintain a suit to foreclose the mortgage. Fairly considering their bill, all they are attempting is to collect the interest past due and have the sinking fund made whole, and in their oral and printed arguments they have disclaimed any other intention. It is well settled that, regardless of such provisions of a mortgage, if the contract has been breached, the minority bondholders cannot be deprived of their right to equitable relief because a majority of the bondholders, whose interests might be adverse, should decline to join with them.

The rule laid down in the above decision was followed in a New York case in which dissenting bondholders of the New York United Hotels, Inc., owners of the Hotel Roosevelt, New York City, sued to have a receiver appointed to provide sufficient funds to pay the interest on their coupons when due, although 95% in amount of the bondholders had agreed to a reorganization plan under which the Hotel Roosevelt was to be conducted by a finance committee and taken out of the control of the Central Hanover Bank & Trust Co., the trustee for the bond-

holders. The court granted the petition of the dissenting bondholders on the ground "that there has been a sufficient diversion of trust property to entitle the dissenting bondholders to the appointment of a receiver for sufficient income of the hotel to pay the interest due them."

In suits of this character, however, one bondholder cannot obtain judgment against the corporation which would impair similar rights of other bondholders under the same trust indenture. In Watson v. C., R. I. & P. Ry., a bondholder individually sued the corporation to reach property not covered by the mortgage, on the ground that the trustee refused to carry out the obligation to recover judgment for the entire principal of all the bonds outstanding, together with all interest in default, and in the event of the foreclosure of mortgaged property not affording the sum required, to recover the deficiency under a further judgment. The Appellate Division of the New York Courts [169 App. Div. (N.Y.) 663] held that "as the trustee had acted, no independent action by a bondholder could be maintained," and one of the judges, in an assenting opinion, maintained that the principle of equality of bondholders under the same indenture would be violated if one bondholder, in his own separate right, recovered a judgment enforceable against property of the mortgagor even though not covered by the mortgage. The same reasoning was applied in Gue v. Canal Co. (24 How. 263), an earlier case decided by the U. S. Supreme Court.

Thus, it will be seen that in voluntary readjustment plans a dissenting bondholder cannot be coerced into accepting any extension or adjustment of maturity or reduction of interest. The bondholder's contract rights with respect to payment of principal and interest are clear cut and the courts will protect them to an unlimited extent as long as the individual action of one bondholder does not impair similar rights of other bondholders under the same indenture, and so long as the property does not come under the jurisdiction of a court in a Bankruptcy Act proceeding.

RELEASES OF MORTGAGED PROPERTY.—Since mortgages cover relatively long periods of time, the operations of a debtor corporation may from time to time require the sale, exchange, or abandonment of property covered by the deed of trust. To meet this situation, trust indentures, as a rule, contain a clause permitting, under prescribed conditions, partial releases and substitutions of property covered by the mortgage when sanctioned by the trustee. Such releases are recorded in the same jurisdictions in which the mortgage is recorded, namely, in all counties of all states in which the mortgaged property is located. Without the recording of such instrument the property could only be sold or otherwise disposed of subject to the lien of the mortgage.

The provisions concerning releases comprise such matters as: (1) the nature and amount of property subject to release, (2) the identification of the specific parcels of property released, (3) the method or methods of ascertaining its value, (4) the application of the proceeds from its sale, and (5) the extension of the mortgage lien to substituted property or to property acquired with the proceeds from the sale of released property. The prime purpose of the conditions relating to releases is to protect the equities of the bondholders from impairment and to maintain the value of the whole property secured by the mortgage.

In applying to the trustee for a release from the mortgage, the company must make the following typical averments:

1. That the property to be released is no longer needed in the operations of the company.
2. That it was sold or exchanged for property of at least equal value.
3. That any cash proceeds will be deposited with the trustee, and that any property acquired in exchange will be placed under the lien of the mortgage. In case of the release of any portion of the property subject to a prior mortgage, any cash consideration received will be deposited with the trustee under that mortgage.

The application for release will have to be accompanied by various documents, including a certified copy of the directors' resolutions authorizing the application, opinion of counsel as to the title of the property to be acquired and, as required by the Trust Indenture Act, a "certificate of fair value" prepared by an independent engineer of the property to be disposed of and of the property to be secured in exchange, if any.

Any cash proceeds deposited with the trustee are returned to the company:

1. To reimburse it for the cost of property purchased or constructed under the terms of the indenture.
2. For the redemption of bonds at the option of the company, or for their purchase in the open market or on tender made by holders.

The indenture may stipulate that unless the company uses the cash within one year of its deposit with the trustee, the latter may employ it in redeeming bonds issued under the indenture or in investing it in securities of other companies approved by the debtor corporation.

CONSOLIDATIONS AND MERGERS.—Provisions relating to the possible consolidation, merger, or sale of the entire assets of the debtor corporation are also found in trust indentures. The principal feature of such provisions is the requirement that in the event of a merger, consolidation, or sale of assets, the rights and equities of the bondholders should in no way be impaired and that the property and other equities covered by the trust indenture as an entirety should remain so subject after the consolidation, merger, or sale of assets, and that the successor corporation shall assume the bonds of the predecessor corporation.

"NO RECOURSE" CLAUSE.—Trust indentures generally contain a clause, which may be reproduced in the bond certificate, by virtue of which the bondholders waive their right as creditors to take advantage of the law rendering incorporators, stockholders, officers, and directors personally liable for certain acts or omissions. Under this clause, for example, it is impossible for the trustee or the individual bondholder to sue stockholders for any balance due on their stock. The clause describes the bonds as solely corporate obligations and that no personal liability attaches to the above-mentioned individuals because of these obligations.

CHANGES IN TRUST INDENTURES.—A trust indenture, being a contract, cannot be altered without the consent of the parties to it, including the bondholders. Unless the instrument contains a provision permitting its modification (except in the terms of payment) with the

consent of a certain majority in amount of the bondholders—two-thirds, three-fourths, or 85%—usually their unanimous consent must be secured to any proposed change. Such consent is generally obtained by requesting the deposit of the bonds under an agreement with a committee having the matter in charge. If all the bonds or the majority required by the indenture are deposited, the change in the indenture becomes effective and is binding in the latter case on any nonassenting minority. When sufficient amount of the bonds is not deposited to enforce the change upon all, the plan may be abandoned or it may be carried out so far as the assenting bondholders are concerned. In this case, the assenting bonds are stamped with an appropriate notation to indicate their changed status. An example of a legend that may appear on so-called stamped bonds is as follows:

> The owner of the within bond has participated in the plan of the readjustment dated ..... and by such participation the within bond is subject to such plan and modification and is so received by every subsequent holder thereof.

The two classes of bonds into which the original issue has been thus divided—the stamped and the unstamped—have distinct market quotations, and the latter may sell at a premium because payment in full is expected by dissenters.

SUPPLEMENTAL INDENTURES.—This is a method of modifying at any time or adding to the provisions of the indenture, and special provision is usually made for it in the indenture itself. The trustee may be authorized to join with the debtor company in the execution of such supplements to the indenture. Supplemental indentures have a variety of purposes, the most common of which are:

1. To subject to the lien of the indenture additional property or additional collateral security, acquired through consolidation, merger, purchase, or otherwise. This is the most common use of supplemental indentures.
2. To have a public record of the terms of a new series of bonds if the bonds are issued under a mortgage, since supplemental indentures are recorded in the same public offices as the mortgage.
3. To evidence the assumption, as the result of a consolidation, merger, or purchase of assets, of bond issues which will have priority of lien on the mortgaged property.
4. To evidence the succession of another corporation to the debtor corporation and its assumption of the latter's bonds.
5. To evidence any change in the indenture which favors the bondholders.
6. To evidence a change in any covenant of the indenture, which will require the consent of the bondholders and the stamping of an appropriate endorsement upon the bonds.

Mortgage Bonds

MORTGAGE INSTRUMENTS.—A mortgage bond is one secured by a mortgage deed of trust which is a trust indenture containing, in addition to the usual provisions and covenants, a conditional conveyance or pledge of property. As indicated previously under the section "General Provisions of Bond Indentures," the mortgage trust indenture will

contain a detailed legal description of the specific property which is mortgaged. The terms of the conveyance are very similar to those of the ordinary real estate mortgage, the debtor corporation being the mortgagor and the trustee the mortgagee in the interest of the bondholders. Similarly, the debtor corporation retains possession of the mortgaged property while the defeasance clause in the mortgage indenture states that if the corporation pays off the bonds in the manner described in the indenture, the title to the property reverts to the corporation free of any lien which the trustee may have possessed.

PURPOSE OF THE MORTGAGE.—As explained above, the mortgage bond consists of two separate instruments—the bond and the mortgage. The bond proper is secured simply by the general credit of the issuing corporation. If the bond is additionally secured by a mortgage, the holder's position is thereby strengthened. If a corporation is forced to default in the payment of its bonds, the probability is that its general promise to pay is not of great value, so the bondholders almost invariably proceed against the specific property mortgaged because their chances of collecting something here are much better than if they try to collect from the general assets of the corporation. The use of mortgage bonds by a corporation will therefore tend to lower the cost of funds to it as compared with the use of unsecured bonds. The reaffirmation of the "absolute priority" doctrine in corporate reorganization cases makes this particularly true.

CLOSED MORTGAGE.—The maximum amount of bonds which may be issued under the deed of trust is known as the amount authorized, and bond issues restricted to definite sums are designated limited issues. When the total amount authorized has been put out, the issue, or the mortgage, if the bonds are secured, is said to be closed.

Closed mortgages are of several types:

1. The typical one by the terms of which the entire authorized amount of bonds is to be issued at once.
2. One that becomes closed only after several issues have been put out under the mortgage and the entire authorized amount is exhausted.
3. One that is closed by the voluntary action of the corporation, through the creation of a supplemental indenture, before the exhaustion of the total authorized amount.

DISADVANTAGES OF CLOSED MORTGAGES.—Under a closed mortgage covering the entire property, when the maximum amount of bonds authorized has been issued, additional borrowing has to be done under a second or junior mortgage, subordinate in lien to the first. At one time it was customary for corporations, especially railroads and the older public utilities, to limit the authorized amount to the immediate capital requirements, with the consequence that in time they had a number of mortgages on their property of different degrees of priority and each for a relatively small amount. This was made unavoidable because the prior lien issues were not retirable by call. Thus during the period from 1885 to 1910, the predecessors of the present New York Central Railroad Co. put out at least seven mortgage bond issues, ranging in amount from $322,000 to $15,000,000. They are prior in lien to the later, larger mortgage issues of the present company and are

therefore called underlying mortgages. The relatively small amounts of these issues and their priority of lien over the later issues cause them to rank higher in investment quality. The discontinuance of the use of these small limited mortgages by railroads has been due to the difficulty of marketing successive issues which represented liens subordinate to those preceding them.

Large public utilities (some large industrial companies also) which, like railroads, constantly require capital for expansion have profited by the experience of railroads and have not resorted to closed issues to any extent. On the other hand, smaller public utility and industrial companies which do not expect to finance expansion by long-term borrowing frequently issue closed mortgage bonds subject, perhaps, to call. The fact of the issue being a closed one is stressed in public offerings of the bonds, since a restriction on further borrowing that may handicap the company in the future should it desire to return to bond financing is distinctly to the advantage of purchasers of the issue.

PURPOSE OF ISSUE OF CLOSED MORTGAGE BONDS.—As closed mortgage bonds are issued to furnish capital for immediate needs, their purpose may be any one of the following:

1. To reimburse the corporation for capital expenditures already made and thus improve its working capital position.
2. To make an immediate acquisition of property or securities in another company, which are to be included under the lien of the trust deed.
3. To finance the construction of a new plant or some other project about to be undertaken.

OPEN-END AND LIMITED OPEN-END MORTGAGES.—Mortgage bonds which are not limited to specific amounts are known as open-end or indeterminate issues or mortgages. If the authorized amount is specified but is fixed at a figure far in excess of the requirements of the present or the near future, being intended to cover all requirements for an indefinite time, the issue is known as a limited open-end mortgage. Thus, the sale during 1945 of $40,000,000 Montana Power Co. first mortgage 2⅞% bonds, due 1975, was made under an open-end mortgage with no dollar limit fixed as to the amount of bonds that might be issued thereunder. Similarly, during 1945 the Goodrich (B.F.) Co. sold $35,000,000 first mortgage 2¾% bonds, due 1965, under a limited open-end mortgage of $45,000,000, the balance of $10,000,000 being reserved for future capital requirements.

Open-end and limited open-end issues are the usual types of bonds put out nowadays by railroads, public utilities, and the larger industrial companies. The advantage of such mortgages lies in the greater flexibility they lend to the financial structure of corporations, since under such arrangements the volume of borrowing can be better adjusted to the growth of the company's business than when each successive issue is a closed one. These issues are put out for certain specific purposes mentioned in the trust deed and for general corporate purposes. They may be put out from time to time at the discretion of directors to reimburse the company's treasury for expenditures for capital improvements, additions, and new acquisitions. Likewise, a certain amount may be reserved to refund underlying issues.

In the history of public utility financing, the limited open-end mortgage followed that of the closed mortgage. The limited authorized amount was set so far ahead of a company's apparent needs that it was thought it would never be reached. However, owing to the rapid expansion of these companies, the authorized limits were quickly reached, with the result again that issues junior to those closed had to be put out. Large operating public utilities do bond financing now chiefly under open-end mortgages.

RESTRICTIONS ON ISSUE OF BONDS UNDER OPEN-END AND LIMITED OPEN-END MORTGAGES.—Various restrictions are imposed upon the issue of bonds under open-end and limited open-end mortgages, and the trustee is charged with the duty of seeing that these restrictive provisions are properly complied with by the corporation before it authenticates any additional bonds. The following provisions are typical of many issues:

1. Restriction to a stated percentage, say 60%, 65%, or 75%, of the lower of actual cost or the fair value of net property additions subsequent to the sale of the original issue of bonds. A provision of this nature is found in both of the above-mentioned mortgage bond issues of Montana Power Co. and Goodrich (B.F.) Co.
2. Limitation of the interest burden of the corporation's bonds, including that of the proposed issue, to a stated ratio to the net earnings available for interest payment for a stated period preceding the issuance of the additional bonds. Thus, the Goodrich (B.F.) Co. mortgage indenture provides that the average annual consolidated net earnings available for interest (as defined) during a consecutive period of 24 months during the 30-month period preceding must be at least twice the annual interest charge upon the consolidated funded debt outstanding and to be issued before the new bonds can be issued.
3. Restriction of the amount of bonds outstanding to a certain proportion of the net current assets or net quick assets of the corporation. Thus, the mortgage indenture of the York Corp. first 3¼s, due 1960, provides that no additional bonds may be issued unless net current assets as of a date within 120 days next preceding, but adjusted so as to give effect to issuance of additional bonds, are not less than the principal amount of all funded debt outstanding, including additional bonds to be issued.
4. Restriction to a fixed ratio to capital stock outstanding or to the capital stock and surplus. Thus, the Pennsylvania Railroad general mortgage bonds cannot exceed the amount of the outstanding capital stock.

Other restrictions which are sometimes applied to open-end and limited open-end mortgages are: (1) limitation of the amount of bonds that can be issued in any one year or some other stipulated period; (2) the requirement of a previous or simultaneous new or additional issue of junior bonds or preferred stock.

ILLUSTRATION OF MULTIPLE RESTRICTIONS UNDER AN OPEN-END OR LIMITED OPEN-END MORTGAGE.—During 1945 the Wheeling Steel Corp. issued $24,000,000 first mortgage "C" 3¼s, due 1970, under a limited open-end mortgage of $75,000,000, which issue constituted the only outstanding mortgage debt of the company. The mortgage indenture provided that:

Bonds of other series up to a total amount not exceeding $75,000,000 at any one time outstanding may be issued: (1) To provide for or reimburse capital expenditures made or to be made by company after Dec. 31, 1944, for following purposes: (a) acquisition of real estate, plants and equipment and betterments and improvements thereto; (b) acquisition of mining properties (including leasehold interests therein) and betterments and improvements thereto; (c) acquisition of secured obligations of some subsidiary issued in respect of expenditures made or to be made after Dec. 31, 1944 for any of the purposes specified in (a) or (b), above; and (d) acquisition of shares of stock of a subsidiary or of some other corporation, the ownership of which would be useful in the steel business and;

(2) To retire or refund bonds;

(3) Additional bonds may also be issued against deposit of an equal amount of cash.

Additional bonds issued for acquisition of or additions or betterments of property are restricted in amount to 65% of cost or fair value, whichever is less. Bonds issued in acquiring stock of another company are limited to 50% of cost or fair value to company, whichever is less, of shares acquired, but no bonds may be issued for stock unless a majority of the capital stock of the acquired company entitled to vote for directors shall be owned by Wheeling Steel and pledged under the first mortgage. Sinking funds must be created in connection with issue of bonds for acquisition of mining properties. The amount of bonds which may be issued for mining properties or additions, betterments, etc., thereto is limited to an amount not exceeding $4,000,000 plus an amount equal to 10% of series C bonds previously retired, and plus the amount of bonds previously retired through mining sinking funds. Additional bonds in respect of mining leasehold interests or rights may not be issued if upon such issue the value of such interests or rights would exceed 10% of the total value of the trust estate. The amount of bonds which may be issued in the acquisition of stocks is limited to 10% of total amount of bonds at the time outstanding.

No additional bonds shall be issued for above purposes unless consolidated net earnings (as defined) available for interest charges for the calendar year next preceding such issue, or the annual average of such consolidated net earnings for the three calendar years next preceding such issue, shall have been at least three times annual interest charges on all bonds outstanding and to be issued.

ISSUANCE OF BONDS AGAINST DEPOSIT OF CASH WITH TRUSTEE.—In some mortgages it is provided that the corporation may issue bonds some time in advance of capital expenditures or the acquisition of additional property, provided the proceeds are immediately deposited with the trustee and drawn upon only after certification by the corporation that the proper expenditure has been made or additional property has been acquired. The purpose of this provision is to enable the corporation to take advantage of a favorable market for the bonds.

BONDS ISSUED IN SERIES.—The use of the open-end and limited open-end mortgages by the larger companies has led to the practice of issuing under the same trust deed bonds in successive series or instalments, the aggregate amount of which, however, must always be within the total authorized by the indenture. The indenture specifies in detail the terms of the first series, which is to be issued immediately. The terms of each of the later series—their date, amount, maturity, interest rate, dates of interest payments, denominations, and forms of the bonds

and their interchangeability, provisions relating to conversion, sinking fund, redemption, and taxes—will be such as the board of directors may in their discretion fix from time to time, and they will be expressed in the bonds of such series. The bonds of the same series must be identical in tenor except as to denomination. Just in what respects one series can be made to differ from the others is governed by the indenture. In some instances, the indenture may, for example, stipulate that every series shall mature not before a certain year and not beyond a stated later year. Each series is designated by a distinctive letter, or by the date of its issue or of its maturity, or by the interest rate it bears. The terms of each successive series are set forth in a supplemental indenture.

Trust deeds permitting the issue of bonds in series impart a desirable element of flexibility to the financial structure of corporations. The terms of new bond issues can be adapted to the prevailing investment conditions so that the desired amount of new capital can be secured on the most advantageous terms. The corporation is not compelled to seek a revision of its indenture, a procedure which is generally attended with many difficulties since the consent of all or a certain majority of the bondholders must be secured. Corporations were not infrequently subjected to such embarrassment when indentures were drawn with rigid terms, particularly after a drastic change in interest rates, such as was witnessed immediately after World War I.

Bonds other than mortgage bonds—collateral trust bonds and debentures—are also issued in series.

An example of bonds issued in series is the Wheeling Steel bonds previously cited.

MORTGAGE ON AFTER-ACQUIRED PROPERTY.—As security for an issue of bonds, a corporation often mortgages not only property which it owns or has an interest in at the date of the mortgage deed, but it also covenants to extend the lien to property acquired in the future. The clause in the trust indenture extending the lien is termed the after-acquired property clause. It is usually expressed thus:

> . . . all and singular, its property and franchises of every nature and description whatsoever, whether now owned or hereafter to be acquired.

This clause has been interpreted by the courts to include all real property vested in the corporation, whether or not such property is used in its business. (Monmouth County Electric Co. v. McKenna, 68 N. J. Eq. 160.) It has also been held to apply to the subsequent acquisition of personal property that is affixed to the mortgaged property, even though such personalty was acquired under a conditional purchase agreement. (Tibbett & Wood v. Baham, 180 Fed. 76.) However, if the terms of the mortgage clearly indicate that property which has subsequently been acquired, but which does not constitute a part of the plant used in the company's business, is not intended to come under the after-acquired property clause, it will be excluded from the mortgage.

The application of the after-acquired property clause may be limited by definitely stating in the mortgage deed that only property which is acquired with the proceeds of the present or subsequent issues is to come under the lien of the mortgage.

EFFECT OF AFTER-ACQUIRED PROPERTY CLAUSE ON EXISTING LIENS ON SUBSEQUENTLY ACQUIRED PROPERTY.—Where there are existing liens on property acquired subsequent to the date of the trust indenture containing the after-acquired property clause, such liens are not disturbed by the clause. (McCourkey v. Toledo, etc., Ry., 146 U. S. 536.) But where one corporation is merely a 'dummy' of another corporation, a mortgage on the property of the latter attaches to property of the former. (Cook, Corporations.)

If a corporation has outstanding a prior lien mortgage containing an after-acquired property clause, additional property acquired with the proceeds of inferior lien obligations is also subject to the lien of the prior mortgage, even though such prior mortgage has been closed and no further bonds can be issued thereunder.

PURCHASE MONEY MORTGAGE AS AN ESCAPE FROM AFTER-ACQUIRED PROPERTY CLAUSE.—The after-acquired property clause in closed mortgage deeds has the effect of preventing the corporation from doing future financing except with junior securities. Various methods have been devised to circumvent the clause, of which the purchase money mortgage is one.

The purchase money mortgage, as its name implies, is given to the seller (or vendor) as part of the purchase price of the property. The courts have held that when a vendor deeds its property to the buying corporation subject to a purchase money mortgage received in payment, an after-acquired property clause in an outstanding mortgage bond issue of the buying corporation does not affect the lien of the purchase money mortgage. Hence, property transferred subject to a lien for a part of the purchase money, i.e., subject to a purchase money mortgage, remains covered by this encumbrance until the lien is satisfied and extinguished. A mortgage given as part consideration in the purchase of real property thus takes priority over a mortgage with an after acquired property clause executed previously. The earlier mortgage, however, covers the purchased property as a junior lien, subject to the rights of the holders of the purchase money mortgage. (U. S. v. New Orleans Railroads, 12 Wall. 362; Harris v. Youngstown Bridge Co., 90 Fed. 322.)

ORGANIZATION OF SUBSIDIARY TO AVOID AFTER-ACQUIRED PROPERTY CLAUSE.—A debtor corporation may escape the effects of the after-acquired property clause by organizing a subsidiary corporation to take title to additional property acquired. Such subsidiary may mortgage the property and issue bonds of its own. The subsidiary may lease its property to the parent company in return for a guaranty of the interest and principal of its bonds. This method of escape from the effects of the after-acquired property clause was first followed by the railroads. As noted by Dewing (Financial Policy of Corporations): "This legal subterfuge explains the existence of many of the subsidiary corporate entities frequently created by our large railroad systems for no apparent reason."

AVOIDING EFFECTS OF AFTER-ACQUIRED PROPERTY CLAUSES BY CONSOLIDATION.—Another method of escaping the effects of the after-acquired property clause is through consolidation or merger of the debtor corporation with another company or other

companies. Through the consolidation or merger the debtor corporation loses its identity, and its obligations, including the mortgage bonds, become the obligations of another corporation. According to the weight of authority, the covenant in the mortgage deed to place under the lien all its property owned or hereafter acquired is not an assumed liability of the successor concern. However, as the mortgage deed may provide for the conditions under which the debtor corporation is permitted to consolidate and merge with another corporation, and may even prohibit it altogether except with the consent of a majority of the bondholders, the escape from the effects of the after-acquired property clause under this method may be restricted.

AFTER-ACQUIRED PROPERTY CLAUSE IN OPEN-END MORTGAGES.—The difficulties experienced in the past by railroads with the after-acquired property clause were due to the fact that the bonds were issued under closed mortgages which authorized in each case comparatively small issues. With the open-end and limited open-end mortgages used nowadays by railroads, public utilities and larger industrial companies which allow for additional issues of bonds in the future, inclusion of a clause or clauses to place under the lien of the mortgage all property acquired in the future is absolutely essential. Such a clause is far less burdensome to a corporation where the mortgage is open.

The clause is not infrequently included in closed mortgages under which the smaller industrial and public utility companies put out an initial issue of bonds. Where the bonds run for a comparatively short period of time and there is not likely to be another issue until outstanding bonds are retired, if at all, the company's future financing plans will not be hampered by the presence of the clause in the mortgage. Additional property acquired in the future which will come under the mortgage will be financed with stock issues or from earnings, and the prospect of this increased security for the bonds enables the company to market them on more favorable terms.

SCOPE OF LIEN AND MORTGAGE BOND TITLES.—The title **first mortgage bond** does not mean that the issue has a first lien on all company property. The first mortgage lien may be restricted to a small segment of a corporation's property, or it may apply to substantially all its fixed assets. A corporation may have a number of first mortgage bond issues with co-equal first mortgages on different properties; or first, second, and third mortgages on the property of the company as a whole. Similarly, a mortgage bond issue might be a first mortgage on the smaller part of the company's properties and a second mortgage on the larger part of the properties. Generally speaking, however, modern corporations do not have a complex system of liens with the exception of some railroads where the nature of the growth of that industry resulted in complicated lien structures.

Mortgage bond titles are not necessarily descriptive of exactly what security or priority is provided. Thus, the Missouri-Kansas, Texas Railroad Co. prior lien bonds are junior to certain underlying first mortgage bonds and are not the prime mortgage bond issue of the system. Similarly, the Bangor & Aroostook Railroad Co. consolidated refunding gold 4s, due 1951, are in effect a first mortgage on that company's entire railroad system, and the Queens Borough Gas & Electric Co. general mortgage 5s,

due 1952, are a first mortgage on that company's entire property. It is necessary to examine the chief indenture provisions and the company's existing funded debt structure in order to establish the actual priority of a given mortgage bond issue. Financial manuals summarize such information.

Bond issues variously termed general and refunding, first and refunding, first and consolidated, and so on are put out under open-end or limited open-end mortgages to finance additions, betterments, and acquisitions, already made or to be made in the future, and to refund underlying issues, either those previously put out by the corporation or those assumed by it in consolidations or mergers. They are especially characteristic of the financial structures of railroads and public utilities.

The refunding type of mortgage simplifies the debt structure of the company. At the outset, a refunding issue may be a first lien on a very small portion of the corporation's property, a second lien on another portion, a third on another, and so on. Eventually, as underlying bonds are retired, the refunding issue becomes a first mortgage on the entire property.

DIVISIONAL BONDS.—The term divisional bond is applied mainly to railroad funded obligations secured by a division or branch of a railroad system. Many of these bonds were originally issued by corporations which were subsequently acquired through merger or consolidation, and the bonds were thereupon assumed by the parent company. After consolidation, the bonds continued to retain their original lien and the position of the bondholders was not disturbed. For various reasons a divisional mortgage, other things being equal, has not the intrinsic merits of a mortgage covering the main property of the railroad company. This is chiefly due to the fact that a division or branch of a large railroad system is not an independent transportation unit. Its earning power is, in most cases, dependent on the main lines of the railroad. However, a division which furnishes the main line with important traffic or is an important outlet for traffic may furnish the basis of a safe and valuable mortgage security.

TERMINAL BONDS.—In many large cities, railroads making joint use of terminals do not own them directly but through a joint subsidiary especially organized to take title to the properties. The subsidiary issues bonds secured by a mortgage on the property. It is a common practice for the parent railroads to guarantee such bonds jointly and severally, either on their face or through a lease or operating agreement.

When several railroads use terminal property owned by only one of their number, and the owner company issues bonds secured by the property, the other railroads may guarantee the bonds or enter into contracts for the use of the property. This contract may be placed under the trust indenture as additional security for the terminal bonds.

Collateral Trust Bonds

NATURE OF SECURITY.—Collateral trust bonds are bonds secured solely or for the most part by the pledge of stocks or bonds or both as collateral with the trustee under a collateral trust indenture. This indenture empowers the trustee to sell the pledged securities in

case of default, and from the proceeds recover the sum due on the bonds. A pledge of securities is also frequently included as additional security in mortgage deeds on physical property of large companies, especially in refunding issues. Practically the same provisions relative to the pledge are found in these mortgages as in the regular collateral trust agreements. Bonds issued under such an indenture may also be known as mortgage and collateral trust bonds.

The name properly applied to bonds secured by a pledge of securities only is collateral trust bonds. Frequently, however, such bonds bear rather misleading titles, such as first mortgage bonds, collateral mortgage bonds, mortgage collateral bonds, first lien bonds, etc.

TYPES OF COLLATERAL.—The securities pledged under collateral trust agreements may be of the following three general classes:

1. Bonds and stocks of partly or wholly owned subsidiary companies. This is the usual case.
2. Prior lien long-term bonds of the pledgor company deposited to secure short-term notes or a junior issue of bonds. The bonds deposited as collateral must be mortgage bonds, as there would be no purpose in simply duplicating the company's unsecured promises to pay.
3. Bonds and stock of companies entirely independent of the pledgor or issuing company, held merely for investment. Such bonds are issued by some investment trusts, to take one example.

COVENANTS AND AGREEMENTS OF COLLATERAL TRUST INDENTURES.—The covenants and agreements discussed below apply mostly to cases where the securities of subsidiaries are pledged as collateral for the bond issue.

DEPOSIT OF PLEDGED SECURITIES.—The pledged securities must be deposited with the trustee, under the typical agreement, as a prerequisite to its authenticating the bonds. Practically the only exception to this rule is when a bond issue has a secondary lien on the pledged securities, which in that case are deposited with the trustee under the prior lien indenture. A trustee may, however, release a sufficient number of pledged shares of stock to qualify directors. Deposited stocks and registered bonds may remain in the name of the debtor company until a default occurs, the trustee having an irrevocable power of attorney to enable it at any time to transfer securities as authorized under the indenture; or the securities may be transferred to the name of the trustee in the first place if this is required by the terms of the indenture. On the other hand, because of the greater difficulty of effecting transfers of securities registered in the name of a corporation or trustee, pledged stocks may first be transferred to the name of a nominee, such as an employee in the trustee's office, who thereupon assigns the securities to and deposits them with the trustee.

PAYMENT OF PRINCIPAL, INTEREST, AND DIVIDENDS ON PLEDGED SECURITIES.—Upon maturity of any pledged bonds, the principal is to be paid to the trustee. Any dividends or interest payments received by the trustee during the life of the pledged securities are turned over to the pledgor corporation, so long as the latter is not in default. Bond coupons are delivered to the corporation for

collection as they mature. But if payments are made from the proceeds of sale of property subject to a mortgage, or if they represent capital distributions, they are usually retained by the trustee. Cash thus received by the trustee, as well as funds received in payment of the principal of pledged bonds, is held as additional security for the bonds issued under the collateral trust indenture, and is only paid to the corporation in reimbursement for capital expenditures or against deposit of other securities of equivalent value. In the event of default, all pledged securities standing in the corporation's name are immediately transferred to the name of the trustee, which then takes steps at once to collect and retain all dividends and interest.

VOTING PLEDGED STOCK.—The pledgor corporation is permitted to vote pledged stock unless it defaults in any respect, in which case the voting power is exercised by the trustee. If stock is registered in a trustee's name, the latter delivers proxies on request before annual or special meetings of the stockholders of the company whose shares have been pledged. If the stock pledged represents a stated proportion of the total outstanding, such as two-thirds, it may not usually be voted so as to authorize any increase in the capital stock of the issuing company unless provision is made for the pledging of the new shares under the indenture, so that the ratio of the stock pledged to the total outstanding will not be decreased. This provision is designed to insure control over the subsidiary company for the collateral bondholders.

It may also be stipulated that additional shares or bonds of the subsidiary already outstanding which may be acquired by the pledgor company shall be pledged. This corresponds to the after-acquired property clause in mortgage deeds.

All stock dividends declared by a company whose stock is pledged are retained by the trustee, and no steps may be taken by the pledgor company looking to the dissolution of a subsidiary whose shares are pledged without the consent of the trustee. A pledgor company, if it has a controlling interest in a subsidiary, is usually required to covenant to pay the subsidiary's taxes and other assessments in case the latter should fail to meet them.

RELEASE OF PLEDGED SECURITIES.—A collateral trust indenture may authorize the trustee to release to the pledgor company certain of the pledged securities, provided they are replaced with securities of at least equivalent value. The indenture may specify the method by which such equivalent value may be determined. Thus, two arbitrators may be appointed to appraise the collateral, one by the pledgor company and one by the trustee. In case the two arbitrators disagree, it may be provided that the value of the substituted securities shall be determined by a member of a stock exchange. The indenture may also state the principles of valuation the arbitrators should follow.

The Chicago, Burlington & Quincy Railroad Co. collateral trust 3½% bonds, due 1969, issued in the principal amount of $30,000,000, have been secured by the pledge of $55,000,000 principal amount of that company's first and refunding mortgage 4½% bonds, due 1970. The collateral pledged may be withdrawn in the ratio of $1,833.33 for each $1,000 collateral trust bond retired, provided the market value (as defined) of the first and refunding mortgage bonds remaining as collateral is at

least 125% of the outstanding collateral trust bonds after the withdrawal.

CONSOLIDATION, MERGER, OR SALE OF ASSETS OF SUBSIDIARY.—Present-day indentures make provision for the possible consolidation or merger of subsidiaries, the securities of which are pledged under an indenture, or for the sale of their assets. In case a subsidiary is combined by any one of these three methods with a corporation other than the parent company, securities received by the parent company in exchange for its pledged holdings are to be deposited under the indenture. On the other hand, if the subsidiary is absorbed by the parent company itself, the subsidiary's securities held by the trustee are returned to the parent for cancellation, but the subsidiary's property, the fee of which the parent company has now acquired, becomes subject to the lien of the indenture.

REORGANIZATION OF SUBSIDIARY COMPANY.—In case of failure and judicial sale of the property of any subsidiary whose securities are pledged under an indenture, the trustee may in its discretion, or must when requested by the pledgor corporation or a majority of the bondholders, use the pledged security as part or all the consideration to buy in the property, reorganize it into a new company and pledge its securities under the indenture. Or the trustee may join with others in a plan of reorganization and accept in place of the pledged securities of the old company the securities of the reorganized company.

PLEDGE OF MISCELLANEOUS COLLATERAL.—When bonds are secured by the deposit of securities of various companies in none of which the pledgor corporation has a substantial interest, the provisions of the indenture will differ from those described in the foregoing pages. The income from the securities may be retained by the trustee for the payment of the interest on the bonds issued under the indenture, and there will often be a strict provision for maintaining the market value of the collateral at a certain percentage above the face amount of collateral trust bonds outstanding, by deposit of additional securities when necessary. Free substitution of pledged securities may be permitted, provided the new securities are at least equal in value to those replaced. This type of indenture contains no provisions relating to pledge of additional issue of stock or bonds by a company whose securities are pledged.

An illustration of this kind of collateral trust bonds was the three issues of collateral convertible gold 5s once issued by the Alleghany Corp., a railroad holding company. All three issues were secured by deposit, in varying amounts, of shares of stock of a number of railroads in the Van Sweringen System. While there were separate indentures for the issues, they had several similar provisions with respect to the security underlying them. These permitted substitutions and withdrawals of collateral under specified restrictions, and provided for maintenance, by the deposit of additional collateral if necessary, of the market value of the collateral at 150% of the amount of the outstanding bonds. If the market value ratio fell below 150% and was not restored to this minimum requirement, dividend payments on the common and preferred stock of Alleghany were prohibited, and the trustee was required to

impound for the benefit of the bondholders all income received on the collateral securities, as well as to vote the pledged stock. During the history of these issues the ratio of the pledged collateral was often below 150%, and the trustee was engaged in continual litigation with the Alleghany management over the control of pledged stocks until the 150% requirement was eliminated by a readjustment plan which amended the indentures. The three issues were retired in 1944.

REASONS FOR USE OF COLLATERAL TRUST BONDS.— Such bonds are now used by every type of corporation for a variety of purposes.

1. Public utility holding companies use this type of issue to borrow on the pledge of a multitude of small bond or stock issues of subsidiary companies, no one of which is large enough to command a wide market.
2. Among railroads, recourse is often had to collateral trust bonds for the purpose of financing the purchase of a controlling interest in another railroad, the purchased stock forming all or part of the collateral.
3. A number of investment trusts and similar organizations have issued collateral trust bonds to raise additional funds. The indentures under which they are put out may limit the amount of such indebtedness to a stated ratio to the capital stock or the net assets, and prescribe certain investment standards for use of the proceeds, particularly with reference to risk distribution. Most investment trusts of the management type, however, cannot afford to tie up any considerable proportion of their security investments through such a pledge unless flexible provision is made in the indenture for substitution of collateral.
4. Collateral trust bonds are also issued to circumvent legal obstacles, such as the after-acquired property clause in railroad trust deeds securing mortgage bonds. Title to additional property acquired is placed in a subsidiary company, and its acquisition is financed by sale of collateral trust bonds by the parent company, secured by the pledged securities of the subsidiary company.

CREDIT POSITION OF COLLATERAL TRUST BONDS.— Corporate management should recognize that there are four main factors determining the investment standing of a collateral trust bond issue, namely:

1. The value of the pledged collateral, not only in terms of current market quotations but also prospective future value under unfavorable conditions.
2. The earning power, present and prospective, back of the pledged securities.
3. The strength of the general promise to pay of the issuing corporation, for a fixed interest collateral trust bond issue can never be weaker than a debenture issue of the same company.
4. The protection afforded the buyer of a collateral trust bond issue by the terms of the indenture.

A court decision holding that creditors are entitled to damages resulting from **postponement of the sale of pledged collateral,** due to the action of the court in a bankruptcy reorganization, indicates that these bonds hold a relatively strong position in such cases.

Equipment Obligations

CHARACTER OF OBLIGATION.—Equipment obligations have been issued for the most part by railroads and other transportation companies. They constitute in essence a lien on specific lots of railway equipment or rolling stock.

Originally, these obligations were a form of security which weak roads that could not finance purchases of cars and locomotives otherwise were compelled to employ. But their use is now favored even by the strongest railroads as the lowest cost type of financing available. The obligations are known as equipment trust certificates or equipment trusts, and as equipment notes or bonds, depending upon the form of the agreement. They are usually issued in denominations of $1,000 and are made to mature serially in a number of instalments, the last instalment falling due well within the estimated life of the equipment which forms the basis of the security. They are issued under three plans: (1) the equipment mortgage plan; (2) the conditional sale plan, sometimes referred to as the New York plan; and (3) the so-called Philadelphia plan, which is in the form of a lease agreement.

Before 1920, the general practice was to issue equipment obligations up to about 90% of the value of the equipment and to retire them serially in 10 years. More recently, however, the practice has been to issue them for only about 75% or 80% of the cost, and retire them serially in 10 or 15 years. Much of the railroad steel equipment now in use has an average serviceable life in excess of 20 years.

EQUIPMENT MORTGAGE PLAN.—This form of obligation is an ordinary bond or note secured by a lien on equipment. The railroad company acquires title to the property and executes a trust agreement by means of which the property is conveyed to a trustee in the same manner as under ordinary mortgage bonds or notes. These equipment mortgage bonds or notes are, for the most part, of comparatively recent origin and have been used by roads of strong credit. An obstacle to their more extensive use has been the presence of after-acquired property clauses in the outstanding mortgages of many of the railroads, by virtue of which equipment becomes subject to these liens as soon as the railroad receives title to it.

CONDITIONAL SALE PLAN.—Under this arrangement, the vendor of the equipment, usually the manufacturer, transfers it to a trustee, which executes an agreement to sell it to the railroad for an initial cash payment and a number of deferred payments. These deferred payments are represented by equipment notes or bonds, as they are called under this plan. Title to the equipment, it is stipulated, remains with the trustee until all the notes have been paid, when title passes to the railroad. Institutions financing equipment purchases by railroads often favor this method.

PHILADELPHIA PLAN.—This arrangement is almost universally employed today. It consists of two parts—a trust and a lease agreement—which are rendered virtually one by means of references in each to the other. Parties to the trust agreement are the vendors of the equipment, a trust company which is to act as trustee under the inden-

ture, and the railroad company. The vendor agrees to deliver the equipment to the trustee and receives from the latter its so-called share certificates, or equipment trusts, which the vendor sells to bankers or directly to investors. Thereupon the equipment is leased, under the lease agreement, to the railroad in consideration of the latter paying a periodic rental sufficient to defray interest on the trust certificates (the coupons attached are called dividend warrants) and the instalments of principal as they fall due. The railroad also pays the trustee an advance rental of 20% to 25% of the value of the equipment, so that the trustee is required to issue trust certificates for only 80% or 75% of the purchase price of the equipment. It is stipulated in the lease agreement that when a railroad has paid all rentals, the trustee will execute the proper instrument of conveyance so as to transfer title to the equipment to the railroad.

The main characteristics of this form of equipment obligation are: (1) that the obligations are issued by the trustee, though the railroad may undertake to guarantee their payment by endorsement or otherwise; and (2) that pending the completion of the rental payments by the railroad, complete title to the equipment rests in the trustee on behalf of holders of its trust certificates.

An example of an equipment trust obligation is furnished by the issue in 1945 of $4,575,000 principal amount of equipment trust certificates of the Central Hanover Bank & Trust Co., as trustee, for the purchase of 5 Mallet freight locomotives, 1,000 all-steel hopper cars (50-ton), and 500 all-steel box cars (50-ton) which were leased under the Philadelphia plan to the Baltimore & Ohio Railroad Co. The certificates were offered at prices to yield from .90% to 2.30%, according to maturity, and they fall due in instalments of $305,000 each March 1, 1946–1960 inclusive. The company paid 20% as an advance rental on its lease of the equipment, so that the amount for which the trust certificates were issued was only 80% of the purchase price of the equipment.

COVENANTS IN EQUIPMENT OBLIGATION AGREEMENTS.—Aside from provisions for payment of interest (or dividends) and principal, the usual covenants, especially under the Philadelphia plan and conditional sale plan, establish the railroad's obligation:

1. To maintain the equipment in proper condition and repair, and replace that which is destroyed.
2. To insure the equipment.
3. To pay all taxes.
4. To indemnify the trustee for all claims arising out of the ownership or use of any of the property.
5. To fasten and keep on each piece of equipment a metal plate showing that the trustee is the owner.
6. To file periodically with the trustee a statement of the location and condition of the equipment.

In case of default on any of the covenants, payment of interest and principal becomes due immediately, and the trustee may take possession of the equipment and sell it for the purpose of reimbursing itself for the amount still due on the equipment trust certificates or notes. The railroad covenants that it will at its own expense deliver the equipment at such place or places on its road as the trustee may reasonably designate.

USE OF EQUIPMENT TRUST OBLIGATIONS OUTSIDE RAILROAD INDUSTRY.—Success of the railroad industry with the equipment trust obligation has caused other industries to employ it. Thus, oil companies have bought tank cars through the equipment trust arrangement, and steel and coal companies have also used this device. Similarly, General American Transportation Co., an equipment manufacturer, has issued equipment trust obligations secured not only by ordinary tank cars, but also by specially constructed cars for milk and chemicals. More recently, some air transport companies have financed new flying equipment by means of the equipment trust device. However, use of the equipment trust obligation in other than railroad fields has not been as thoroughly tested credit-wise, and it should be remembered that industrial equipment is less standardized and that industrial companies are subject to greater competitive hazards.

STRONG CREDIT POSITION OF EQUIPMENT TRUST OBLIGATIONS IN RAILROAD INDUSTRY.—The investment standing of railroad equipment trust obligations is very high. During the severe depression of the 1930's, the holders of only one issue (Florida East Coast Railway) suffered a loss of principal. This is indeed an excellent investment record, particularly when one considers the number of railroad receiverships or bankruptcies during the 1930's. The main reasons for the strong position of equipment trust obligations and their high investment rating are:

1. The essential nature of the property security, since rolling stock is necessary for the operation of the railroad.
2. Even in the event of reorganization the railroad, as a public utility, will continue to operate and not be liquidated. During the reorganization period the trustee or receiver will continue to meet payments on the equipment trust certificates since any other method of acquiring equipment would be more costly than to continue payments on the leased equipment.
3. Even if default on the equipment trust obligations does occur, the equipment may be seized by the trustee and sold. The market for standard equipment is usually such that it can be sold for more than the amount of the outstanding debt.
4. Since the equipment trust obligations are paid off faster than equipment depreciates, there is a gradual increase in the equity of the remaining certificate holders.
5. Section 77 of the Bankruptcy Act provides that courts may not interfere with seizure of equipment by trustees for issues of equipment trust certificates or notes.

Guaranteed Bonds

PURPOSE.—Strictly speaking, a guaranteed bond is one which is guaranteed by a corporation other than the issuing corporation. The purpose of such a guaranty is to improve the investment merit of a bond issue. Typical reasons for the use of the guaranteed bond are:

1. A strong holding company may desire to improve the credit standing of the bonds of a little-known or smaller subsidiary by guaranteeing them and thus lowering the interest cost to the subsidiary. The parent will then be able to benefit from such savings through the receipt of larger dividends from the subsidiary

2. Similarly, a holding company may desire to improve the credit standing of a weaker subsidiary whose earnings are not as good as those of the parent company.
3. Guaranteed bonds frequently are used in connection with lease arrangements. Thus, when one railroad leases the property of another the lessee, as part of the terms of the lease, may guarantee the bonds of the lessor. (For example, see guaranty of New Jersey Junction Railroad Co. first 4s, due 1986, by the New York Central Railroad Co.)

In addition to a guaranty by other corporations, bonds of small companies may be personally guaranteed by their chief owners. Thus, William Randolph Hearst personally guaranteed the obligations of several of his smaller business ventures.

FORMS OF GUARANTY.—Bonds of one corporation may be guaranteed by another, which may be the parent company or the lessee of the other company's property. The guaranty may apply to the payment of both principal and interest or of interest alone. Very rarely is the principal guaranteed and not the interest. The guaranty may also be secured by the deposit of collateral.

The guaranty may be one of three kinds: (1) a guaranty by an endorsement of the bond; (2) a guaranty by special covenant with the debtor corporation; or (3) a guaranty under a lease or operating agreement. Guaranty by endorsement on each individual bond certificate is the most effective form, especially in the event of a reorganization under the Bankruptcy Act. The endorsement of the bonds of the Boston & Albany Railroad Co. improvement 4¼s, due 1978, by the New York Central Railroad Co., a typical form, reads as follows:

For Value Received, the New York Central Railroad Company hereby guarantees the punctual payment of the principal and interest of the within bond, at the time and in the manner therein specified, and covenants, in default of payment of any part thereof by the obligor to pay the said principal and interest of the within bond, as the same shall become due, upon the demand of the holder hereof.

In Witness Whereof, the said Company has caused its corporate seal to be hereto affixed and attested by its Secretary or Assistant Secretary and this instrument to be signed by its President, or one of its Vice-Presidents, as of the date of said bond.

The New York Central Railroad Company
By .....
Vice-President

Attest
.....
Secretary

The other forms of guaranty—by contract and under a lease of the debtor corporation's property—do not usually appear on the face of the bonds. Hence, bondholders are not a party to the guaranty agreement and may have no individual rights thereunder, unless the agreement is specified in their trust indenture. The more common form of such indirect guaranty is that under a lease. A corporation, in leasing the property and business of another, may agree under the terms of the lease to pay interest on all outstanding funded indebtedness of the lessor.

JOINT AND SEVERAL GUARANTIES.—Bonds may be guaranteed by two or more corporations. Such guaranty may be a joint guaranty or a joint and several guaranty. An illustration of a joint and several guaranty is that on the Kansas City Terminal Railway first mortgage bonds. This issue bears the joint guaranty of 11 railroad companies making use of the terminal, each agreeing unconditionally to pay 1/11 of the principal and interest of the bonds. In the event of any of the guaranteeing companies failing to carry out its part of the agreement, the remaining companies must make good all deficiencies. The principal and interest on the New York Connecting Railroad first mortgage bonds are likewise guaranteed jointly and severally by endorsement, by the New York, New Haven & Hartford Railroad Co. and by the Pennsylvania Railroad Co.

VALUE OF THE GUARANTY.—The value of a guaranty depends on (1) the financial standing of the guarantor, (2) the interest of the guarantor in the business and assets of the debtor corporation, and (3) the strategic importance of the business and assets of the debtor corporation to the guarantor. If the credit standing of the guaranteeing corporation ranks higher than that of the direct debtor, the bonds will have a better investment standing as a result of the guaranty. On the other hand, they may not have as high standing as the direct, well-secured obligations of the guarantor. There have been instances, however, in which, because of the strategic value of the debtor corporation's property to the guaranteeing concern, a guaranty has been honored even when the guarantor's own obligations were in default.

LEGAL POSITION OF GUARANTEED BONDS.—A guaranty by one corporation of the interest and principal of the bonds of another does not prevent enforcement of the covenants of the debtor corporation; nor is it necessary to make the guarantor a party to a foreclosure suit to enforce the lien of the obligations. If the guarantor pays the interest and principal, no action can be taken by the bondholders against the debtor corporation, unless the bonds are also secured by a mortgage, in which case the bondholders may sue and foreclose to protect the equity of the lien. In cases where foreclosure proceedings are taken directly against the debtor corporation, and only partial recovery of principal and accrued interest has been effected, the guarantor may be sued for recovery of the deficiency.

The legal position of a guaranteed bond with respect to the guaranteeing corporation is not uniform. In the case of a guaranty by endorsement on each individual bond certificate, the courts have generally held that the guaranteed bond occupies the same position with respect to the unsatisfied principal as a debenture bond of the guaranteeing corporation. On the other hand, an indirect guaranty under a lease arrangement providing for the payment of interest on all outstanding funded debt of the lessor is likely to prove less effective than a direct guaranty of endorsement. In the event of a reorganization and the disaffirmance of the lease by the trustee, the claim of the lessor corporation other than a railroad corporation is limited under Chapter X of the Bankruptcy Act to (a) rent up to the date of disaffirmance, that is, rent due and unpaid, (b) damages under the covenants of the lease, and (c) damages for future rents up to a maximum of 3 years less any recovery assured or

anticipated during that period. In the case of the disaffirmance of a railroad lease, the discounted value of future rentals for the unexpired term of the lease constitutes an unsecured claim against the lessee corporation. In the event of affirmance of a lease, the lessee's reorganization plan will usually make provision for the treatment of the security holders of the leased line on the basis of its relative earning power in the system.

Debenture Bonds

GENERAL CHARACTER.—These are direct obligations of the issuing corporation, resting solely on its general credit without specific mortgage or pledge, or assignment of property. Debentures may be issued without trust agreement or indenture, and prior to 1899 this was done, the rights and privileges of the bondholders being recited in the bond certificates, which made them very impressive. Since that year they are almost invariably issued under trust indentures, with a trustee to supervise the execution of the various covenants contained in the indentures.

USUAL COVENANTS.—The usual covenants in debenture agreements are the following:

1. **Acceleration** of the maturity of the debt in the event of default on the debentures or on other outstanding obligations, or in case of receivership, insolvency, or bankruptcy.
2. The debentures to be secured by a prior lien if a subsequent mortgage is placed on the corporation's property, or to be secured equally and ratably with these later mortgage bonds, assets to be pledged only to secure current loans of not longer than a year's duration. As a result of such provision, debentures may in the course of time become mortgage bonds due to future sales of mortgage bonds, though they will still be called debentures. These are known respectively as the **covenant of prior coverage** and the **covenant of equal coverage.**
3. The requirement that the corporation shall maintain current assets equal to a certain ratio of its current liabilities, usually 1½ or 2 to 1.
4. Limitations placed on the total funded debt, which may be restricted to a certain proportion of the total assets or of the capital stock. Sometimes it is provided that no further debentures may be issued.
5. Debentures, like mortgage or other especially secured bonds, may have redemption, convertible, or sinking fund features.
6. Protective covenant in the event of (a) merger or consolidation, or (b) sale of assets.

EXAMPLES OF PROTECTIVE PROVISIONS IN DEBENTURE AGREEMENTS.—Under the trust agreement for its debenture 3s, due 1965, the Continental Baking Co. agreed not to create any mortgage on its property or pledge any assets unless the debentures would be secured equally and ratably with the later issue, nor to permit any subsidiary to mortgage or pledge its assets. However, these provisions would not apply to (1) purchase money mortgages or liens; (2) acquisition of property subject to existing mortgages or liens; or (3) any pledge, in the ordinary course of business, of current assets to secure indebtedness maturing in less than 12 months. No additional funded

debt may be created unless immediately thereafter consolidated net tangible assets shall be at least twice consolidated funded debt and consolidated net earnings shall (1) equal for 12 consecutive months of 18 months next preceding, or (2) average for 3 fiscal years next preceding, at least 3 times annual interest charges on consolidated funded debt to be outstanding. The trust agreement also contained a restriction on dividends on capital stock.

TYPES OF COMPANIES ISSUING DEBENTURES.—Debentures are issued most often by industrial corporations of high credit standing, owing to the prejudice of bankers and stockholders against a mortgage on a manufacturing plant. They are also issued by operating public utility companies with a near-term or serial maturity, to reduce the amount of long-term mortgage bonds sold and thus improve the quality of the lien issue.

Convertible Bonds

NATURE OF THE CONVERSION RIGHT.—One provision sometimes included in trust indentures is the privilege extended holders to convert the bonds into another security of the issuing company at a certain rate of exchange, within a given time, and upon specified terms and conditions. Bonds which carry this privilege are most often debenture issues, and the securities into which they are convertible are almost always junior issues, usually preferred or common stock, or units consisting of both. In rare instances, preferred stocks have been made convertible into bonds, but in such cases there is ordinarily some earnings restriction to limit the volume of conversions. In a number of cases among public utilities and railroads, short-term notes have been made convertible into long-term mortgage bonds which were deposited as collateral to secure the notes. There are instances also in which bonds are convertible into the securities of another company.

The typical convertible bond is one exchangeable for common stock of the same issuer at the option of the holder.

ADVANTAGES AND DISADVANTAGES OF CONVERTIBLE BONDS.—Some purposes achieved by a corporation in issuing convertible bonds are:

1. A lower rate of interest may be offered investors, or a higher price charged for the bonds. Convertible bonds are often of weaker or second-grade quality, and in order to improve their salability the conversion feature is added so as to attract more speculative bond buyers who want an opportunity to share in the future prosperity of the business beyond the fixed claim of ordinary debt. Thus, the cost of funds to a corporation is lowered as compared with the cost of a straight debenture issue.
2. Upon conversion, a company rids itself of a fixed interest charge and its capital structure is simplified. Convertible bonds thus make for a more flexible financial structure, and reduction of debt through conversion clears the way for new bond financing at a later time of need.
3. Conversion will tend to broaden distribution of the company's stock.
4. At times when the bond market is weak the corporation may utilize the conversion device to get a higher price for the issue. Corpora-

tions with a very strong credit position may employ convertible bonds for this purpose. In 1928 and 1929, when the bond market was weak but the stock market was quite strong, the American Telephone & Telegraph Co. and the Atchison, Topeka & Santa Fe Railway Co. sold convertible bond issues, although their credit standing was of the highest.

Disadvantages to the corporation in issuing convertible bonds are:

1. Substantial conversion into voting common stock may shift control of the company to others than the management.
2. Conversion will tend to dilute earnings per share and depress the selling price of the stock, unless the growth of the company counterbalances the increase in the number of shares outstanding.
3. Reduction of debt through conversion reduces the advantage of "trading on the equity."
4. The effect of conversion on the tax position of the corp ration may be unfavorable. Upon issuance of the convertible bonds it will be necessary to pay the federal issuance tax of 11¢ per $100 of face value and a state tax on the increase of stock necessary to meet any conversion of bonds. More serious is the fact that, upon conversion, the corporation loses the right to deduct the interest from taxable income.

CONVERSION RATIO OR PRICE.—The conversion ratio expresses the rate at which the bonds are exchangeable for stock. It may be expressed in terms of the number of shares one bond of $1,000 par is convertible into, in which case it is known as the conversion ratio or rate; or it may be expressed in terms of the amount of par value or principal amount of the bonds exchangeable for one share of stock, in which case it is known as the conversion price. Thus, the Waltham Watch Co. convertible income 5% debentures, due 1975, were made convertible into 40 shares of Class B common stock for one $1,000 bond, whereas the conversion privilege on the Noma Electric Co. convertible 4¾% debentures, due 1960, read "convertible into common stock at $32.50 per share at any time." However, the Noma Electric Co. conversion privilege could be rephrased so as to be expressed in the same manner as the Waltham Watch Co. conversion option. Thus, if a bond with a conventional par of $1,000 is said to be convertible into common at $32.50, it means that $32.50 of bonds at par will be convertible into one share of common, or at a rate of approximately 30.769 common shares per $1,000 bond.

A constant conversion price may be stipulated for the entire life of the privilege, or the price may be increased at the end of each successive period of years. For example, the Textron, Inc. convertible debenture 4½s, due 1960, were made convertible into common stock at $33.33⅓ per share to March 31, 1947, inclusive; at $40 per share to March 31, 1949, inclusive; and at $50 per share to March 31, 1951, inclusive, at which date the conversion privilege expires. Similarly the rate of conversion may change as specified amounts of bonds are converted. Thus, the Republic Drill & Tool Co. convertible debenture 5s, due 1953, were made convertible into 275 common shares per $1,000 bond until one-half the issue has been converted or redeemed, and thereafter into 200 common shares until maturity.

Sometimes bondholders are extended a conversion privilege which involves the payment of some cash. Thus, holders of the convertible

debenture 3s, due 1956, of the American Telephone & Telegraph Co. could convert into common stock until December 31, 1954 at $140 per share, payable by surrender of $100 principal amount of convertible debentures plus $40 in cash. Thus, a holder of a $1,000 bond could receive 10 shares of common stock upon paying $400 in cash.

FIXING CONVERSION RATE.—The conversion price is usually fixed at the time of issue at a level considerably above the current market value of the stock for which the bond is exchangeable. The conversion privilege becomes attractive only when the market price of the stock rises above the conversion price. The factors to be considered in fixing the conversion price are:

1. The price of the stock when the bonds are issued.
2. The prospects of the company and their probable effect upon the price of the stock into which the bonds are convertible.
3. Popularity of the conversion privilege with investors. Convertible bonds are particularly popular in a rising stock market, and a higher price is more acceptable then than at other times.
4. The security into which the bond is convertible, its position in the capitalization of the corporation and its yield at various prices.
5. Length of the period during which the bondholder may convert. As a rule, the longer the period, the less favorable the conversion rates need be with relation to current prices for the company's stock.
6. The stage of the business cycle. In periods of large profits a higher conversion ratio may be set than in periods of falling prices, when investors are more conservative.

TIME OF CONVERSION.—The privilege may become exercisable immediately upon issuance of the securities, or after several years. It may not expire until the bonds mature, or it may terminate at an earlier date prior to the maturity of the bonds. If the bonds are redeemable, it is frequently provided that the privilege shall continue up to a certain number of days, ranging from 5 to 30, before the redemption date. Merger, consolidation, or sale of assets may also terminate the privilege. Sometimes bondholders are obliged to give a few days' advance notice to the company of their intention to effect conversion.

Stock issued upon conversion is customarily issued as of a conversion date, which may be several days prior to the actual date of issuance of the stock certificates. This date is the date of the last act necessary to complete the conversion. It may be the last date upon which surrender notice or payment of fractional adjustments is made. An exact determination of the conversion date is of particular importance in case adjustments of accrued interest and dividends are to be made, or in case there is any question as to the voting or subscription rights of the new stockholders.

SUBSCRIPTION PRIVILEGE.—Unless waived by charter provision or otherwise, or there is some statute to the contrary, stockholders have a preemptive right to subscribe ratably to obligations convertible into stock. The privilege of subscription to convertible bonds is then extended to stockholders, and if the price of subscription is less than the market value of the bonds quoted on a "when, as, and if issued" basis, as is usually the case, the rights have a market value. A right refers to the privilege to subscribe to the bonds attaching to each share owned, and its value is calculated by dividing the difference between the market

value of the bond and the subscription price by the number of shares it is necessary to own in order to entitle one to subscribe to the bond. When the stock sells ex-rights, its price is marked down by the value of the right, and this loss offsets the stockholder's gain in getting the bond at less than market value.

Suppose convertible bonds are offered to stockholders at par, the owner of each 5 shares being entitled to subscribe to $1,000 principal amount, and the bonds are quoted **when, as, and if issued** at 103. The value of the one right is ascertained as follows:

Market value of bond	$1,030
Subscription price of bond	1,000
Value of rights attaching to 5 shares	30
Value of one right	6

This value of the right is its parity value at which a purchase of bonds in the market on the one hand, and a purchase of right and subscription to the bonds on the other, bring equal results. The market price of the rights constantly gravitates toward this parity by reason of the operations of arbitragers who, to reap profits, at one and the same time sell the bonds on a "when, as, and if issued" basis and buy the rights and subscribe for the bonds. The market price of rights fluctuates with the market price of the bonds, and if the latter falls below the subscription price, the rights become valueless.

Rights to buy convertible bonds are evidenced by transferable warrants in the same manner as rights to subscribe to stock. In July, 1941, the American Telephone & Telegraph Co. offered its stockholders the right to subscribe at par to its convertible debenture 3s, due 1956, in the proportion of $100 principal amount for each 8 shares of stock held. One right attached to each share of stock, and a warrant was issued to each stockholder for as many rights as he had shares.

PROTECTIVE FEATURES AGAINST DILUTION OR DESTRUCTION OF CONVERSION PRIVILEGE.—Convertible bond issues generally anticipate changes in capitalization that might cause dilution or actually destroy the value of the conversion privilege. The following adjustments and restrictions protect convertible bondholders (Hills, Cal. Law Rev., vol. 19):

1. If shares issuable upon conversion are split up into a greater number or combined into a lesser number, the number of shares issuable upon conversion shall be increased or decreased accordingly.

2. If issuable shares are changed into the same or a different number of shares of any other class or classes, the conversion privilege will apply to the equivalent number of these new shares.

3. Payment of stock dividends reduces the conversion privilege in the same proportion as the total number of shares outstanding immediately after the stock dividend bears to the total number of shares outstanding immediately prior to the stock dividend. Hence, by the conversion instrument, the holder may be entitled to receive upon conversion at any time after payment of the dividend the new stock in addition to that he was entitled to before the dividend.

4. The maximum number of additional shares and the minimum price at which they may be issued without adjusting the conversion rate are fixed in the conversion instrument. There are many rather complicated

methods used for adjusting the rate when necessary on account of the issuance of additional shares. As a further protection against dilution from the issue of subscription rights to stock, as well as the declaration of large stock and cash dividends, it may be provided that advance notice of such rights or dividends be given so that holders of the convertible bonds might effect their conversions and take advantage of the offer of stock or payment of dividends.

5. Holders of the conversion privilege have no rights upon the termination of the corporate existence of the company by merger, consolidation, dissolution, or otherwise, except such as are granted by the successor corporation or by existing statute. (Parkinson v. West End Street Ry., 173 Mass. 446, 449, 53 N.E.) On this account, a conversion instrument will generally require that the successor company recognize the conversion privilege granted by its predecessor or predecessors.

INTEREST AND DIVIDEND ADJUSTMENTS.—At the time of conversion usually there is accrued interest on the bonds, to which the holder is entitled. On the other hand, if dividends, cash or stock, are being paid on the shares, there may be accrued dividends to which he is not entitled when he receives the shares. Provision is generally made in convertible bonds for the adjustment of such accrued interest, and less often for the adjustment of the accrued dividends as well, at the time of conversion. The company is credited with the accrued dividends and the bondholder with the accrued interest, the difference being settled by cash payment. Regular stock dividends are adjusted on the basis of the market value of all dividend stock in excess of certain permitted dividends. Unless provision is made for such adjustments, the bondholder cannot require payment of accrued interest nor the corporation the payment of the accrued dividends. Fig. 3 was used by holders of the convertible debenture 3s, due 1956, of the American Telephone & Telegraph Co. in making conversion in stock.

ACTUAL CONVERSION.—Holders of convertible bonds are not necessarily influenced to make immediate conversion by the fact that the current market quotation for the stock is above the conversion rate. The price of the bonds will rise in sympathy with the price of the stock, and so far as present market values are concerned there is no advantage in conversion. The rise in the value of the bonds is due to the operations of professional arbitragers who reap profits by purchasing the bonds, selling the stock short, and making delivery on the short contracts after effecting conversion. As a result of these operations, the two securities tend to maintain a parity relationship, at which it is immaterial whether the stock is purchased or the bonds are bought and converted into stock. This tendency to parity, however, disappears when the stock falls to such low levels that the investment value of the bond, apart from the conversion privilege, is higher than its parity with the low-priced stock.

Conversion of the bonds may be forced by the issuing corporation by any of the following methods:

1. Increasing the dividend rate on the common stock so that the increased income to the holder upon conversion will more than offset the increased risk due to the change from bonds to stock.

Instructions Regarding the Registration of Capital Stock Issued in Conversion of Bonds

.....
Date

1. Name in which stock certificate should be issued (PLEASE PRINT).....
Give first or middle name in full; if a woman indicate whether "Miss" or "Mrs."
.....

2. Stockholder's Mailing Address.....
Street and Number
.....
City or Town Postal Zone Number (if any) State

3. Special Instructions for Delivery of Stock if not to be Delivered to above Address: .....

4. Principal Amount of American Telephone and Telegraph Company Fifteen Year 3% Convertible Debenture Bonds, Due September 1, 1956, herewith $.....

5. Serial Numbers of Bonds: ($1,000 Bonds).....
($500 Bonds).....
($100 Bonds).....

6. Remittance herewith for conversion of above principal amount of bonds into ..... shares of capital stock $.....
Signature.....

Total Conversion Price @ $140 per share							Registration Summary No.	Received by	Examined by
Charge for Dividend Adjustment									
Total Charges							Conversion Date	Shares	Verified by	Stock Certificate Verified by
Principal Amount of Bonds Received										
Credit for Accrued Interest										
Amount of Payment Received										
Matured Coupons										
							Description of Remittance			
Total Credits										

FIG. 3. Instructions Regarding the Registration of Capital Stock Issued in Conversion of Bonds

2. Calling the bonds and, if the market value of the stock into which the bonds are convertible is greater than the redemption price, conversion must necessarily be effected to protect the holder from loss.
3. Giving the common stock some special privilege not possessed by the bonds, which will constitute adequate compensation for the risk of owning stock rather than bonds.

BONDS WITH WARRANTS.—An obligation similar in purpose to the convertible bond is the bond with warrants attached which give the owner the right to purchase a certain amount of stock at specified prices. These prices will be higher than the market price of the common stock at the time the bonds are sold. In effect, a warrant represents a call upon the future prosperity of the company and its value will depend upon the expectation that the market price of the common stock will rise above the specified subscription price before the warrant expires.

Generally, the warrants are nondetachable, that is, they may be separated from the bond only when the bondholder desires to exercise his right to buy stock. Detachable warrants may be separated from the bond and sold as separate instruments for whatever the market will bring. From the viewpoint of the corporation, the nondetachable warrant has the advantage that it may be cancelled by redemption of the bond issue, provided the bondholder has not found it to his advantage to exercise the right of purchase prior to redemption.

As compared to convertible bonds, the use of bonds with warrants attached has the advantage from the corporation's viewpoint of providing the company, through exercise of the warrants, with a possible source of additional funds to be used for expansion, retirement of debt or whatever other purpose the management deems wise. Conversion does not in itself provide the company with additional funds.

Corporations which have sold bonds with warrants attached in recent years include Remington Rand, Inc., Read Machinery Co., Inc., Celotex Corp., National Dairy Products Corp., and Thermoid Co.

Income Bonds

NATURE OF OBLIGATION.—Bonds, the payment of interest on which is dependent on the net profits of the issuing corporation, are designated as income bonds, or sometimes **preference bonds.** They have also been called **adjustment bonds,** from the fact that they have been issued in reorganizations to readjust fixed interest debt. Income bonds have been issued occasionally to raise funds for new promotions, or for established concerns which do not want to incur fixed charges.

A corporation issuing income bonds undertakes to pay the interest only as and to the extent that net earnings are available. The principal of income bonds, however, is payable like that of other bonds, and may be secured by a mortgage. Income bonds may also be debentures.

The methods of determining the net earnings applicable to interest payments on income bonds, and the basis of the payment, are set forth in the trust indenture. It is a general provision in indentures securing income bonds that if the entire interest charge is not earned during the designated period, not more than the part earned shall be paid to the bondholders. Thus, if the semiannual interest rate is 2½% and earnings during the last 6 months available for this interest amount to but

1% on the bonds outstanding, bondholders will receive this 1% upon presenting for payment their coupons for the period. It is commonly stipulated also that the interest is payable only in rates which are multiples of even fractions.

DISCRETIONARY PAYMENT OF INTEREST ON INCOME BONDS.—Most income bond indentures provide that interest must be declared and paid by the board of directors to the extent that it has been earned in each year, often after specified deductions.

In rare instances, payment of interest on income bonds, whether it is earned or not, has been left to the discretion of the board of directors of the debtor corporation. In such cases, payment of interest earned must be made before the company may pay dividends on its capital stock. Thus, interest on the Third Avenue Railway Co. adjustment 5s of 1960 is due and payable only when and as declared by the board of directors out of available income. During World War II Third Avenue Railway Co. experienced a sharp increase in earnings, but despite the fact that the company was earning more than the 5% maximum rate on the income bonds, legal proceedings instituted by adjustment income bondholders to force additional interest payments proved unsuccessful.

CUMULATIVE AND NONCUMULATIVE INCOME BONDS.—As in the case of preferred stock, income bonds may be made cumulative or noncumulative. When cumulative, unpaid interest for each year is considered as a deferred payment, and must be paid eventually before shareholders can receive dividends, or at the maturity of the bonds. In many recent issues, the **accumulation is limited.** Thus, unpaid contingent interest on the Chicago Great Western Railway Co. general income 4½s-2038 is cumulative to the extent of 13½% but no more.

Income bonds which are noncumulative lose all claim to interest not paid in any period. This may be true even though in some periods earnings have exceeded the interest rate on the bonds and shareholders have at such times received dividends. However, the bonds may be noncumulative only to the extent interest is not earned. Other cumulative income bonds are occasionally issued with a provision that the interest is noncumulative for a specified period, and cumulative thereafter. Thus, Atchison, Topeka & Santa Fe Railway Co. adjustment 4s-1995 were noncumulative to 1900, but became cumulative thereafter.

It is apparent that income bonds differ widely in their provisions. The exact character of an income bond is determined wholly by the terms of the indenture under which it has been issued.

REASONS FOR USE OF INCOME BONDS.—Income bonds have been issued chiefly in connection with the reorganization of insolvent corporations, particularly railroads and traction companies. They have also been substituted for preferred stock in whole or part by a number of other corporations, due to the tax advantage. Main reasons for their use have been:

1. Uncertainty concerning future earnings, and the consequent desire to reduce fixed interest charges. This practice has been encouraged by the Interstate Commerce Commission.
2. Institutional investors prefer to receive contingent interest obligations to stock in reorganizations, since legal restrictions limit the

ability of institutions such as life insurance companies to hold stock indefinitely.

3. The use of income bonds, as against preferred stock, results in an income tax advantage, since interest paid on income bonds is deductible for income tax purposes whereas preferred stock dividends are not deductible. But the Supreme Court has held income bond interest nondeductible in exceptional cases where the provisions of the issue were practically like those of a preferred stock.

CAPITAL FUNDS.—A feature of railroad reorganizations has been the use of capital funds in connection with the use of income bonds, to prevent siphoning away of all earnings to pay interest, regardless of the needs of the property. Thus, available income for the Chicago Great Western general income bonds is defined as the earnings available after payment of (a) all fixed charges, (b) all sinking fund payments made under the first mortgage, (c) credit to the capital fund account, and (d) any amount necessary to restore to the capital fund account funds used to pay interest on first mortgage bonds.

These capital funds usually provide that the railroad corporation appropriate a percentage of operating revenues to be used for the purchase of equipment, for making improvements to equipment or additions and betterments to other property. Deductions for depreciation of way and structures take the place of appropriations to the capital fund.

DETERMINING WHEN INTEREST IS EARNED.—Income bond trust indentures usually specify the method by which the earnings of the corporation are to be computed. This takes determination of earnings for this purpose out of the hands of the directors, who through manipulation of accounts could make it appear that the corporation is not earning the interest on the income bonds when it is doing so. Even though the indenture specifically requires the payment of interest "whenever earned," accounting questions may arise which make the exact definition of earnings difficult. Thus, the dividing line between ordinary repairs as an expense item and improvements as a capital item is often nebulous. Similarly, allowance of proper depreciation charges is a troublesome point. It doubtless is true that management will usually try to understate earnings to reestablish a company's credit on a firm basis by building up its property and working capital position, but once this has been accomplished the incentive to understate earnings to withhold interest from income bonds is greatly weakened.

Miscellaneous Classes of Bonds

JOINT BONDS.—Joint bonds are obligations issued jointly by two or more corporations, usually railroads, and are their joint and several obligations. Thus, the Louisville & Nashville and the Southern Railway collateral trust joint gold 4% bonds were secured by the stock of the "Monon" Railroad, owned in equal parts by the two guarantors. These two roads were each liable for one-half of the principal and interest, and fulfillment of all other obligations imposed by the indenture under which the bonds were issued. Should either company have defaulted on any of its obligations under the indenture, the deposited stock belonging to the

defaulting company was to become the property of the other company, which thenceforth was liable in severalty upon all the covenants contained in the bonds.

The Illinois Central Railroad and the Chicago, St. Louis & New Orleans Railroad joint refunding bonds are another joint and several obligation of two railroads. They are a direct mortgage lien on property owned by the Chicago, St. Louis & New Orleans Railroad, the capital stock of which is held by the Illinois Central. The Illinois Central assumed and guaranteed the bonds.

Joint bonds have been issued also by states and municipalities. The bonds of the Authority of the Port of New York are in effect a joint obligation of the states of New York and New Jersey.

ASSUMED BONDS.—These are obligations issued by one corporation which are taken over or assumed by a successor corporation. They usually arise as the result of purchase of assets in their entirety, mergers, consolidations, and reorganizations, in each of which transactions the issuing corporation passes out of existence and the new or successor corporation assumes all the obligations under the deed of trust. In the case of a consolidation or merger the assumption of the obligation is by effect of law and is therefore automatic. In a purchase of assets and in reorganizations, the assumption by the successor concern is the result of agreement. (An example of an assumed bond is the Carthage & Adirondack Railway first 4s, due 1981—assumed by New York Central Railroad Co.)

PARTICIPATING BONDS.—Although bonds as a rule bear a fixed rate of interest, a few corporations, particularly those handicapped by poor credit and those that have been reorganized, have issued bonds which give the holders a participation in surplus earnings accruing during the life of the bonds, over and above the fixed rate of interest. These are known as participating bonds. The extent of the participation is defined in the trust indenture, but it may depend largely on the accounting methods used by the debtor corporation.

Participation is variously regulated. It may be a specified addition to the fixed rate, 2% in the case of the San Francisco Bay Toll-Bridge former 7% bonds, or it may represent a stated proportion of the earnings of the corporation. When the participation is limited to a maximum rate on the bonds, the additional rate in excess of the fixed interest rate, if not paid as earned, may be made cumulative. This provision was applied to the San Francisco Bay Toll-Bridge 7% bonds mentioned above.

VOTING BONDS.—Holders of corporation bonds other than income bonds generally have no voice in management so long as there is no default. There are a few exceptions, however. The indenture under which income bonds are issued may give holders the right to vote for directors in the event interest on the bonds is not paid for a certain length of time. Thus, holders of the Third Avenue Railway adjustment income 5s have the right to vote at stockholders' meetings on the basis of one vote for each $100 par value of bonds until all accumulations, at 5% interest, have been paid for 5 successive years. Similarly, the 1935 reorganization plan gave registered holders of the Standard Gas & Electric Co. debentures and notes the right to elect one director.

TREASURY BONDS.—According to the usual meaning of the term, treasury bonds are issued obligations which the corporation has repurchased or otherwise reacquired, apart from the operation of any sinking fund, and which it carries alive and free, to dispose of eventually as it desires. The term is sometimes applied also to authorized but unissued bonds, which have been duly authenticated by the trustee under the indenture and are therefore ready for issuance.

Using the term to refer to obligations which have been reacquired by the issuing corporation, treasury bonds may be shown in the balance sheet either as an asset or as a deduction from the total issued amount of bonds. Accounting practice sanctions carrying them as an asset, especially if they are being held for the purpose of resale, provided, however, there is or is likely to be a market for the bonds. In this case they should be valued at cost or resale value, whichever is the lower.

Bond Amortization and Retirement

NECESSITY FOR AMORTIZATION.—It was formerly argued, particularly for public service industries, that certain types of businesses have a permanent place in the economy of the nation or community and so could incur long-term debt permanently. Railroad financial history has proved this premise fallacious. Recent financing policies in the electric power and light industry reflect recognition of the need for gradual retirement of bonded debt. Regulatory pressure in both the railroad and electric power industries has also promoted bond retirement policies.

Chief reasons for providing for amortization or retirement of debt before maturity are:

1. Management cannot hope to predict the economic and security market conditions that will prevail in the distant future when the debt will fall due. The bond market may be depressed at the time or earnings of the corporation may be low, weakening its credit standing. Corporations with a relatively heavy debt structure especially require a substantial reduction of major bond issues before they mature.
2. To avoid strain on the cash resources of a debtor corporation when the bond issue becomes due, unless provision is made in advance for paying off the bonds either through a refunding operation or by the accumulation of cash or other assets readily convertible into cash.
3. Debt reduction offsets the decrease in property values due to depreciation, obsolescence, depletion, and other causes.
4. The investment standing of the securities remaining outstanding is improved.

METHODS OF BOND RETIREMENT.—There are three main methods of amortizing funded debt:

1. By purchase or call of bonds for retirement from time to time before maturity.
2. By a sinking fund.
3. By issuing bonds which mature in several series or instalments.

"CALL" METHOD OF RETIREMENT.—A bond issue may be made redeemable before maturity in part or as a whole, with redemption at the option of the issuing corporation. The advantage to the

debtor corporation of the **optional call** is that redemption may be effected when it suits its convenience. If only a portion of the issue is redeemed, the call is made by lot. The corporation will naturally prefer to purchase bonds in the open market if they are quoted below the call price. Purchased bonds may be resold, but bonds that have been called are generally not reissuable. The chief disadvantage of this method of bond retirement is the uncertainty of the extent of debt reduction, since the company is under no legal obligation to effect retirement. Conversely, the lack of a legal obligation prevents embarrassment from trying to make payments in poor years.

The nature of the call feature and the mechanics of effecting a call have been described above.

AMORTIZATION THROUGH SINKING FUND.—A sinking fund for bond retirement is a periodical appropriation of cash, paid to the trustee for the purpose of purchasing or otherwise redeeming bonds before maturity or retiring them at maturity. It is often provided that bonds may be deposited with the trustee in lieu of cash. Provision for the sinking fund is included in the trust indenture. As a rule its operation is compulsory, the corporation being under contractual obligation to accumulate the funds and effect the redemptions in accordance with the terms of the indenture. The trustee administering the sinking fund usually serves also as the indenture trustee.

Underwriting bankers generally insist upon sinking fund provisions being attached to industrial bond issues, particularly those of oil, mining, timbering, quarrying, and similar concerns whose assets comprising the natural resource become depleted with operations. Other industrial corporations must also provide for the amortization of their bonds through a sinking fund, as the investing public expects the bonds to be retired at or before maturity and not be extended by any refunding operations. The life and earnings of the ordinary industrial concern are considered too uncertain to permit it to borrow on a long-term basis indefinitely. In recent years, railroad and public utility corporations have also been required to use sinking funds of varying degrees in their bond issues.

TYPES OF SINKING FUNDS.—Sinking funds may be classified by the manner in which the annual amounts are determined. They are:

Fixed Annual Amounts.—The fixed amount may be either a fixed face amount of bonds or a fixed amount in dollars, the former being far more common. If bonds purchased for the sinking fund are cancelled and the interest saved is not paid into the fund (noncumulative sinking fund), this method has the disadvantage of placing the heaviest debt service load upon the earlier years of the issue, since the interest charges decrease as the debt is retired. However, as interest charges are reduced, the corporation will be able to increase dividends correspondingly, which is justifiable since sinking fund payments represent earnings withheld for the purpose of retiring debt.

An example of a fixed sinking fund expressed in dollars is that of the Lehigh Coal & Navigation sinking fund mortgage 3½% bonds, due 1970. The sinking fund on this issue amounts to $200,000 in money payable on or before August 1 of each year, which cash is to be used to purchase bonds prior to September 1 at the lowest prices possible but not

to exceed the sinking fund call price; any remaining balance must be used to redeem bonds by lot on the next ensuing October 1. An example of a fixed sinking fund expressed in face amount of bonds is that of the Consolidated Cigar Co. debenture 3¼s, due 1965, amounting to $200,000 principal amount of debentures each 6 months from February 15, 1956 to February 15, 1965, inclusive.

Variable Annual Amounts.—The variation may take the form of an increasing or a decreasing amount each year. A corporation may desire to increase the annual sinking fund payment each year because (a) it believes the growth of earning power will make it feasible or (b) so as to make the total annual outlay on debt service constant. In (b), sometimes called the **cumulative sinking fund** method, bonds purchased or called are **held alive** in the sinking fund by the trustee, who collects interest on these bonds and applies it to retire additional bonds. Under this plan, the corporation pays out a constant sum yearly for interest and sinking fund. (See Fig. 4 for determination of this amount.)

An example of a cumulative sinking fund is that of the Queens Borough Gas & Electric Co. refunding mortgage 4s, due 1961, which provide for a semiannual principal payment of $50,000 par value with the requirement that the bonds be held alive in the sinking fund. Interest on bonds in the sinking fund increases the amount retired each 6 months.

Percentage of Earnings.—Since the sinking fund charge is a payment which must be made in order to avoid insolvency, very often a corporation may desire to have its obligation to retire debt governed by its ability to pay. The usual base upon which the percentage is computed is net income available for dividends, since a percentage based on gross earnings or sales is not a direct measure of ability to pay. In order to provide for a minimum amount of debt reduction, a corporation will often provide a fixed annual sinking fund payment below which the fluctuating amount based on earnings cannot fall.

An example of an earnings sinking fund is that set forth in the Devoe & Raynolds Co., Inc. debenture 2⅞s, due 1965. This sinking fund is equivalent to 10% of consolidated net income in excess of $400,000 and 15% of consolidated net income in excess of $600,000, but not more than $140,000 principal amount of debentures shall be retired in any one year through the earnings sinking fund. Bonds of the par value of $35,000 must be retired each year in any event, regardless of the earnings level.

The percentage of earnings sinking fund is widely favored because of its flexibility.

Per Unit of Output.—In the case of wasting asset industries, the sinking fund appropriation may be a certain number of cents per ton of coal mined or per barrel of oil produced. In this way, bonded debt is retired as the assets securing that debt are depleted. If there is no production, no sinking fund payment burdens the business. Thus, the sinking fund provision of the Hudson Coal Co. first mortgage 5s, due 1962, requires the company each year to pay to the trustee with respect to anthracite coal mined for market (a) a sum equal to 5¢ per ton on such coal and (b) an additional sum equal to the amount by which 1% of the aggregate principal amount of bonds issued exceeds the amount paid under (a).

USES OF SINKING FUND.—Sinking fund appropriations may be used in one of the following ways:

1. Invested in the bonds for the amortization of which the sinking fund is provided.
2. Invested in securities of other corporations.
3. Invested in the earnings assets of the issuing corporation.

PURCHASE OF BONDS OF SAME ISSUE.—This is the most common use of sinking funds, except for a number of state and municipal sinking fund bond issues. It is usually provided that bonds may be purchased in the open market or privately, or as the result of tenders for which the company has advertised, at not more than par plus a premium. If the bonds are callable, they may be purchased at the "call" price or less, but if not so available they may be called by lot for the sinking fund. In case bonds are not callable for the sinking fund and cannot be purchased at the price stipulated, it may be provided that sinking funds shall be invested in United States government securities or the securities of other corporations or in other bond issues of the same corporation, or that the sinking fund is to be returned to the corporation for investment in property to be pledged under the bonds or otherwise.

The indenture may authorize that bonds of the same corporation purchased for the sinking fund shall be kept alive. In this case they will be held by the trustee and will continue to draw interest, which may be used to reduce the annual periodical sinking fund appropriation or to increase the number of bonds redeemed with the sinking fund. These bonds may be available for reissue if the corporation desires to expand and earnings are satisfactory. On the other hand, the purchased bonds may be kept alive but may be endorsed as being held only for the sinking fund. If the redeemed bonds are cancelled outright, interest on them ceases and the corporation's interest charges are reduced.

When invited by the trustee in a public announcement to make tenders or proposals to sell bonds, holders submit sealed offers that are accepted in an amount sufficient to exhaust the stated sum of cash which the trustee has available at the time. Obviously the corporation will accept the lowest offers.

INVESTMENT IN OTHER SECURITIES.—This method of using the sinking fund appropriation carries with it the risk of unsound investment and it is not frequently used by corporations. If the utmost of safety is sought, the return earned on the sinking fund will probably be less than the amount of interest paid out on the bonds being amortized.

INVESTMENT IN ASSETS OF ISSUING CORPORATION.—The trust indenture may provide for annual payments which are to be used for additions, betterments, or acquisitions in connection with which the company would otherwise be entitled to issue bonds under the mortgage. This clause may be made to apply only when the corporation is unable to purchase its bonds at the maximum price stipulated. It is found principally in the indentures of public utilities.

DEPOSIT OF BONDS IN SINKING FUND IN LIEU OF CASH PAYMENTS.—Many trust indentures permit corporations to offer bonds which they have purchased in lieu of cash in meeting their

sinking fund requirements. The trustees are to accept the bonds at a value fixed in the indenture, which may be the cost of their acquisition in the case of a sinking fund expressed in dollars or the par value in the case of a sinking fund of a fixed face amount. Such a provision enables a corporation to take advantage of prevailing low prices for its bonds and to hasten the reduction of fixed charges, or to accumulate a quantity of bonds against the sinking fund requirements of several years.

DANGERS OF EXCESSIVE SINKING FUND CHARGES.—Mandatory sinking fund payments become a fixed charge to the issuing corporation like interest on the bonds. Unless fully covered by net income, sinking fund appropriations deplete a corporation's cash resources and may become a potent cause of financial distress.

SERIAL BOND MATURITIES.—Serial bonds are issues which mature in instalments on successive dates. Their purpose is similar to that of sinking fund bonds. Instead of making appropriations for a sinking fund to pay off its obligations, however, a corporation agrees to redeem its bonds in serial order, a certain portion coming due and being payable each year or at some other regular period until the whole amount is retired. A default in the payment of the principal of any maturity constitutes a default on the entire issue, thus hastening the maturity of bonds not yet due. The coupon interest rate may be the same for all maturities, and in that case the several maturities are sold at different prices to return different yields. In some instances, coupon interest rates differ for each maturity and the price is the same for all maturities.

Market conditions frequently determine whether it is advisable for a corporation to issue serial rather than sinking fund bonds. If the public desires long-term bonds, corporations as well as states and cities will find it easier to dispose of sinking fund bonds. On the other hand, if investors favor short maturities, borrowers will find a better market for serial bonds. Since World War I, because of past abuse of sinking funds, the sale of serial bonds has become the common method of municipal financing. This method, however, is not as well adapted to corporation obligations, though it is the usual method for amortizing equipment trust obligations. As each serial maturity sells on a different yield basis, investment bankers find the marketing of serial maturities more complicated than sinking fund issues, due to the unequal demand for bonds of varying maturities. Earlier maturities may be in great demand while later maturities will be neglected, or vice versa.

There is also some difficulty in listing serial bonds, owing to the fact that a different quotation will apply to each maturity. On the over-the-counter markets, they are usually quoted on a yield, rather than a price, basis.

FIXING THE SIZE OF SERIAL MATURITIES.—Serial maturities may be arranged on an equal amount basis or on an annuity basis. When the maturities come due in equal amounts, the corporation has a heavier burden of debt service in the earlier years of the issue than in the later years, since as the amount of bonds outstanding is reduced through the maturity of the successive instalments, the interest cost is proportionately lessened. This condition is overcome under the annuity method of amortization. Under this plan, the principal amount of each

successive instalment is increased in proportion as required interest payments are decreased. Principal is amortized and interest is paid by the periodical payment of a uniform amount, usually semiannually. The amount of each of these instalments is determined by the rate of interest and the term of the bond. The table given in Fig. 4 shows the schedule of payments for principal and interest upon a loan of $100,000 at 4% per annum, maturing in 20 annual instalments.

REDEEMABLE SERIAL BONDS.—Serial bonds may be made subject to redemption before maturity either as a whole or in part. When callable as a whole, a different redemption price may apply to each serial maturity, the more distant maturities generally being redeemable at a higher premium than the nearby maturities. When serial issues are called in part through sinking fund operations, the plan may be followed of calling bonds by lot in inverse order of their maturity.

An example of a redeemable serial issue is the Northern Natural Gas Company serial debenture bonds. These bonds, which were offered in November, 1945, at prices to yield 1.40% to 2.55% according to maturity, are dated November 1, 1945, and fall due serially on May 1 of each year, beginning with 1950 and ending with 1965. They are redeemable in inverse order of maturity at a premium equal to a certain percentage of the principal thereof, varying as between the Debentures of the different maturities and the periods in which redeemed.

Repayment of a 4% $100,000 Loan, Including Both Principal and Interest, by a Uniform Annual Payment of $7,358,175 for 20 Years

Years	Adjusted to Nearest Cent			Adjusted to $100 Bonds			
	Principal Owing at Beginning of Year	Interest for Year	Principal Repaid at End of Year	Principal Owing at Beginning of Year	Interest for Year	Principal Repaid at End of Year	Total
1	$100,000.00	$ 4,000.00	$ 3,358.18	$100,000	$ 4,000	$ 3,400	$ 7,400
2	96,641.82	3,865.67	3,492.50	96,600	3,864	3,500	7,364
3	93,149.32	3,725.97	3,632.21	93,100	3,724	3,600	7,324
4	89,517.11	3,580.68	3,777.49	89,500	3,580	3,800	7,380
5	85,739.62	3,429.59	3,928.59	85,700	3,428	3,900	7,328
6	81,811.03	3,272.44	4,085.73	81,800	3,272	4,100	7,372
7	77,725.30	3,109.01	4,249.17	77,700	3,108	4,200	7,308
8	73,476.13	2,939.05	4,419.12	73,500	2,940	4,400	7,340
9	69,057.01	2,762.28	4,595.90	69,100	2,764	4,600	7,364
10	64,461.11	2,578.44	4,779.73	64,500	2,580	4,800	7,380
11	59,681.38	2,387.26	4,970.92	59,700	2,388	5,000	7,388
12	54,710.46	2,188.42	5,169.75	54,700	2,188	5,200	7,388
13	49,540.71	1,981.63	5,376.55	49,500	1,980	5,400	7,380
14	44,164.16	1,766.57	5,591.60	44,100	1,764	5,600	7,364
15	38,572.56	1,542.90	5,815.28	38,500	1,549	5,800	7,340
16	32,757.28	1,310.29	6,047.88	32,700	1,308	6,000	7,308
17	26,709.40	1,068.38	6,289.80	26,700	1,068	6,300	7,368
18	20,419.60	816.78	6,541.39	20,400	816	6,500	7,316
19	13,878.21	555.13	6,803.05	13,900	556	6,800	7,356
20	7,075.16	283.01	7,075.16	7,100	284	7,100	7,384
Totals	.....	$ 47,163.50	$100,000.00	.....	$ 47,152	$100,000	$147,152

FIG. 4. Table Showing How Uniform Annual Payments Retire a Debt by Maturity

COMPARISON OF SINKING FUND AND SERIAL BONDS.—Weighing the choice between sinking fund and serial bonds, the following factors should be taken into account:

1. Serial bonds permit lower cost borrowing when short-term interest rates are lower than long-term. Wider use of serial issues is explained to some extent by the desire to appeal to shorter-term investors such as commercial banks, who accept a lower rate of interest. Since holders of a sinking fund bond do not know when it will be retired, it is regarded as a long-term investment.
2. Serial bonds must be paid off at par as they mature, whereas corporations can buy in bonds at a discount if quoted below par in the market to satisfy sinking fund requirements.
3. Debt retirement is inflexible with serial maturities, whereas the use of sinking funds, especially those based on earnings, makes for flexible debt retirement practices. Default on a sinking fund seldom precipitates bankruptcy as does failure to pay principal when due.
4. Debt retirement is more certain in the case of serial issues, since bondholders have shown greater willingness to waive or postpone sinking fund payments than they have to extend maturities.
5. Serial issues have poorer marketability as compared with sinking fund issues. A sinking fund bond issue will have one price, while a serial bond issue will have a different price for each maturity.

Refunding of Bonds

NATURE OF OPERATION.—Refunding consists of replacing one security issue with another. It may take the form of a direct exchange. Usually, however, it consists of retiring an outstanding issue with the proceeds from the sale of a new offering. The old issue may be wholly or only partly refunded. The refunding operation may take place before maturity or at maturity.

REFUNDING BEFORE MATURITY.—An outstanding issue of bonds may be refunded into a new issue whenever conditions in the investment market are favorable and the new issue can be floated at a saving in fixed interest charges as compared with the old issue. Refunding before maturity may also be undertaken to (a) eliminate bond issues with unfavorable indenture provisions, such as a closed mortgage issue with an after-acquired clause or an issue with a heavy sinking fund or restrictive dividend covenant; or to (b) replace short-term obligations with long-term, or vice versa.

METHODS OF REFUNDING.—Refunding before maturity may be accomplished through negotiation with bondholders or the sale of a new bond issue to replace the existing issue. A holder of a 6% noncallable issue in a period of low money rates will obviously refuse an offer to refund, unless accompanied by a cash bonus. If the refunding is for a purpose other than reducing interest charges, bondholders might be induced to exchange their bonds by (a) improving the security, (b) placing a sinking fund on the new issue, (c) paying the old bondholder a cash bonus, (d) placing a higher interest rate on the new issue, etc.

If a bond issue is callable, refunding can be accomplished through exercise of the company's option to redeem the old bonds when the bond market is receptive to a refunding offering, the proceeds from which will be employed to redeem the old issue. Refunding to effect

a saving in interest charges has proved to be of extreme importance in a period of low interest rates, and some corporations have refunded three and even four times as interest rates have declined. Thus, the Cincinnati Gas & Electric Co. refunded 4% first mortgage bonds in 1936 with a 3¼% issue and in 1945 refunded the 3¼% issue with a 2¾% issue.

FACTORS TO CONSIDER IN REFUNDING BEFORE MATURITY.—In considering the advisability of refunding a callable bond issue before maturity so as to effect a reduction in interest charges, the following factors should be weighed by the corporation:

1. Will additional restrictive covenants have to be included in the indenture of the new issue, which may offset to some degree the benefit of a reduction in interest charges?
2. Can a more favorable maturity date be secured through refunding?
3. What will the net dollar savings be as a result of the refunding? In this connection the following factors should be considered:
   a. The dollar cost to call the outstanding issue, after allowing for tax savings. Present tax laws allow, as a deduction for income tax purposes, the call premium paid upon redemption. (Canadian tax laws do not permit such a deduction.)
   b. Expenses of refinancing, such as the cost of registration under the Securities Act if the new issue is to be publicly sold; printing and engraving expenses; fees paid to legal counsel and trustees; and the investment bankers' commission if the issue is to be sold publicly. In private financing, a placement fee is often paid.
   c. The interest rate, maturity, and selling price of the new issue.

For an example, take a corporation with a $1,000,000 bond issue outstanding with a 5% coupon rate, due in 25 years and callable at 105. The corporation has been advised that investment bankers will be able to sell a new 25-year 3½% issue at a price to net the company par (after registration costs, banking, and counsel commissions). What would the dollar savings amount to? The cost to call the 5% issue would be $1,050,000 before income taxes, and $1,031,000 after income tax savings based on a 38% tax rate. The corporation would have to sell $1,031,000 principal amount of 3½% bonds and provide for the amortization of the additional principal amount of $31,000 over the 25-year life. This amortization or sinking fund would require an annual payment of $1,240, assuming the sinking fund will retire bonds at par. Average annual interest charges on the new 3½% issue would be $35,564.20 (3½% of the average amount outstanding, which is found by taking the amount outstanding during the first and last years and dividing by 2, i.e., $1,031,000 plus $1,001,240 divided by 2, which equals $1,016,120). Hence, total annual interest and amortization charges on the new 3½% issue would be $36,804.20. The annual interest requirements on the 5% issue is $50,000. Thus, annual savings would be $13,195.80 before income taxes, or for 25 years $329,895. The income tax paid on the added net income reduces the benefit from refunding.

REFUNDING AT MATURITY.—Refunding is common at maturity. It may be necessary either because the company lacks the necessary cash to pay off the maturing bond issue, or because it is believed sound financial policy to continue borrowing and conserve cash on hand. Public utilities usually continue their borrowing more or less indefinitely,

and as one issue matures, the funds for meeting it are realized from the sale of a new issue. Thus, Utah Power & Light Co. raised the funds to pay off its first mortgage 5% bonds, due 1944, by selling new first mortgage 3¾% bonds, due 1968.

A corporation unable to sell a new issue on satisfactory terms may ask the bondholders to accept new bonds in lieu of the old. It is often necessary to offer the old bondholders some inducement to exchange such as (a) improving his security, (b) placing a sinking fund on the new issue, (c) paying the old bondholder a cash bonus, (d) placing a higher interest rate on the new issue, etc. Exchanges may be offered by companies of high credit standing, where holders of maturing obligations are known to be eager to accept. These exchanges may be underwritten by investment bankers.

EXTENSIONS.—In the event a corporation is unable to refund a maturing obligation and lacks the cash to pay it off, the management may ask bondholders to extend the maturity of the issue. In the case of a large corporation, an extension may be difficult because of the number of bondholders involved and their impersonal relationship with the corporation. It may be necessary to offer bondholders some inducement to have them agree to an extension of maturities. Since it is usually to the interest of the creditors, as well as the corporation, to avoid legal reorganization proceedings, with all the expense and unfavorable publicity attending them, it is often possible to win wide agreement to the extension of a maturing obligation. Thus, the Portland Gas & Coke Co. was able to effect an extension of the maturity of its first and refunding 5% bonds from 1940 until 1950. Extensions are discussed at length in connection with corporate readjustments.

Redemption of Bond Issues

NATURE OF REDEMPTIONS.—Redemption of a bond issue for cash may take place (a) at maturity, (b) before maturity in connection with exercise by the company of its option to call an issue in whole or in part as provided in the indenture, (c) before maturity in connection with mandatory retirement as required by a sinking fund provision (sinking fund call prices are usually lower than the regular redemption prices), and (d) before maturity and not under the terms of the indenture.

Redemption under (a), (b), and (c) above is a mandatory procedure. Thus, redemption at maturity must be provided for by the corporation and accepted by the bondholders in the normal course of events. Similarly, redemption before maturity in connection with sinking fund provisions is a mandatory procedure for the corporation. Although optional redemption before maturity (see (b) above) is voluntary on the part of the issuing corporation, nevertheless, once a call notice has been issued, the bondholder must turn in his bonds on the call date upon payment of the principal amount plus the call premium and accrued interest.

Redemption before maturity which is not effected under the terms of the indenture (see (d) above) might better be described as "solicited"

redemption, or debt retirement by voluntary agreement between the corporation and the bondholder. For example, a corporation may have excess cash available which it desires to use to reduce funded debt by purchases in the open market at a discount. During World War II, many railroad corporations used excess cash in large amounts to buy in funded debt at a discount. A corporation may ask for tenders of its outstanding bonds, in which case the bondholder is cognizant of the fact that his bond is being bought by the corporation for retirement. In other cases, the corporation may prefer to purchase bonds for retirement through brokers and dealers, in which case bondholders will not be immediately aware that it is using funds to retire debt before maturity.

During a period of high income taxes, corporations find it advantageous to retire noncallable funded debt at high premiums, which are deductible from taxable income. The corporation may direct a broker to buy the bonds for its account, in the open market, or it may publicly offer to buy a stated principal amount of bonds, inviting tenders of bonds, with or without fixing a price, within a limited period. Thus, Consolidated Edison Co. on October 4, 1945, offered to purchase various assumed bond issues outstanding. For example, the company offered to purchase any of the New Amsterdam Gas Co. first consolidated 5% bonds, due 1948 (noncallable), at 109.68 (a yield basis of ½ of 1% maturity). The offer expired November 1, 1945. The ability of the company to charge off the premium paid as an income tax deduction accounted for this offer. As the yield on United States government bonds of comparable maturity was higher, many bondholders accepted the offer.

Leasing vs. Borrowing in Financing Buildings

OPERATION UNDER LEASE.—Insurance companies in several states may acquire commercial or industrial real estate for investment. In lieu of borrowing, a corporation can sell present or new buildings to the insurance company and then lease them at a fixed annual rental. Thus, Sears, Roebuck & Co. in December, 1946 sold store properties in several large cities to the Mutual Life Insurance Co. of New York, leasing them on a long-term basis. Similarly, Continental Can Co. in January, 1947 completed an agreement with the New York Life Insurance Co. whereby the insurance company would purchase several new plants then under construction and lease them to Continental Can for 25 years, with an option to renew. In financing of this type, the insurance company is concerned primarily with two factors: (1) an appraised value of the physical facilities that will reflect their adaptability for other use, and (2) the credit standing of the lessee corporation.

New York State's insurance law permits a maximum amortization period of 50 years, but to the extent that the aggregate income return from such real estate investment exceeds 4% such excess must be applied as additional amortization. As a practical matter, insurance companies require a lease period of less than 50 years during which complete amortization of the investment will be effected. Thus, in January, 1947, the lease by the Equitable Life Assurance Co. to Bonwit-Teller, Inc., of a 14-story building previously owned by the department store was for a period of 30 years with an option to renew.

Some other large institutional investors have entered into similar arrangements.

ADVANTAGES TO CORPORATION OF LEASING BUILDINGS.—Advantages to a corporation employing the lease arrangement are:

1. Both fixed assets and funded debt do not appear in the corporation's balance sheet. Other things being equal, a corporation having a simple stock capitalization is regarded as being in a stronger financial position than a company with debt.
2. Borrowing power is retained for other purposes. Also the corporation is able to expand its productive facilities without diluting the stockholders' equity through sale of additional stock. The legal position of creditors of the lessee corporation may be improved since, in Chapter X reorganization, the maximum claim of the lessor is for 3 years' future rentals.
3. Working capital is conserved and not diverted for the acquisition of fixed assets. This is especially important for a growing corporation which finds its working capital requirements increasing as sales volume expands.
4. Rental payments are operating expenses chargeable against earnings, reducing the taxable income of the lessee. This is offset by the fact that depreciation and interest can no longer be deducted. By adjusting annual rental payments, however, the amount of the deduction from taxable income can be made flexible, whereas the Treasury rigidly regulates depreciation rates for various types of property.
5. If improvements are made on leased property, the lessee may be able to amortize their cost in a more flexible manner than through depreciation of owned property.
6. The lease arrangement enables management to check on the wisdom of its expansion plans with an outside financial institution such as a life insurance company.

DISADVANTAGES TO CORPORATION.—Arguments against use of building leases as a substitute for borrowing are:

1. Past experience with respect to lease arrangements has shown that it is impossible to spell out and provide for every possible contingency in the terms of the lease. Burdensome litigation may develop over the rights of the respective parties.
2. Leases may curtail the corporation's freedom of action. Thus, the lessor may object to the placing of certain types of equipment in the building because its resale value to other users may be affected adversely. If the leased plant proves unprofitable, the lessee must continue to pay the rent even if it is not operated. The existence of such unprofitable leases might hamper future financing or merger plans.
3. Inadequate provision may be made for replacement of fixed assets in the future.
4. Erection of new plants to replace those that have become obsolete prematurely may be discouraged by the existence of a long-term lease.

SECTION 12

MONEY, CREDIT AND BANKING

CONTENTS

PAGE

Monetary and Credit Systems

The role of money 529
Definition and functions of money . 529
Currency and bank deposits 530
The monetary and banking system ... 530
Monetary standards 531
Managed monetary systems 531
Types of money 531
Standard money 532
Commodity money 532
Token money 532
Fractional money 532
Representative money 532
Credit or fiduciary money 532
Fiat money 532
Legal tender 532
Lawful money 532
The role of credit 532
The value of money 533
International monetary settlements ... 534

Monetary System of the United States

Early monetary history 534
Federal Reserve currency 535
The monetary crisis of 1933 536
The new gold standard 536
Effects of devaluation 537
Silver operations 537
Monetary aspects of bank credit 538
Money in circulation 538
Bullion and currency of the United States (*f.* 1) 539
The present monetary system 540

Banking Systems

The evolution of banking 541
The role of commercial banks 542
How commercial banks create deposits 542
The role of central banks 543
Other credit institutions 544
Foreign banking systems 544

Banking System of the United States

Early banking history 545
State and national banks 545

PAGE

The Federal Reserve System 546
Map of the Federal Reserve System (*f.* 2) 547
The Board of Governors 548
Federal Reserve banks 548
Assets and liabilities of Federal Reserve banks (*f.* 3) 549
Federal Reserve membership 550
Member bank reserves 550
The Federal Deposit Insurance Corporation 551
Regulatory legislation 552
Supervision 553
Principal bank supervisory relations (*f.* 4) 554
Proposals for banking unification 553
Interbank relations 555
Branch and group banking 556
Branch banking controversy 556
The case against branch banking .. 557
The case for branch banking 557
Possibilities in branch banking 557

Banking Trends

The depression flood of bank failures 558
Banking under the "New Deal" 558
Trends in bank loans 559
The growth of bank investments 559
Factors affecting deposits 559
Bank earnings 560
Banking competition 560

Money and Credit Management

Definitions and objectives in management 561
Monetary policy 562
The money supply and the price level 562
Credit control and reserve credit 563
Techniques of credit control 564
Quantitative control 564
Interest rate and government security market controls 564
Qualitative credit controls 565
Federal Reserve policy 566
Postwar policy 567
Credit policy and fiscal policy 567
Radical proposals 567
Limitations and potentialities of credit management 568

SECTION 12

MONEY, CREDIT AND BANKING

Monetary and Credit Systems

THE ROLE OF MONEY.—Money is the keystone of modern economic life. Without money, using the term in its broad sense to include bank credit as well as currency, our complex business civilization would be unable to function. Its role today is almost as vital as language.

Money has a long and colorful history. Its evolution has been accompanied by great advances in trade, in division of labor and specialization of production, in the development of resources and the introduction of new machines and techniques. But included in the story are money panics and periods of catastrophic inflation. No single institution has been of greater use to mankind and none, certainly, has caused greater misery when misused. Despite many centuries of experimentation, man has not yet mastered the art of control of money.

Knowledge of money and of banking, the money mechanism, is requisite to an understanding of the economic system. A smoothly functioning monetary and credit system can make a great positive contribution to a nation's welfare. But ignorance and human weakness have frequently led to blunders which have hindered economic progress and at times to the adoption of magic cures which have brought ruin.

The evolution of money and banking systems is not over. Many aspects of the subject are highly controversial today. Further experiments will be tried. Only through a knowledge of past experience and of the present structure of money and banking can a repetition of old fallacies be avoided and real progress achieved. Study of past and present does not yield a set of formulated answers but does provide an essential factual basis for constructive thinking.

Definition and Functions of Money.—Money is a tool. Defined from the standpoint of its economic functions, it consists of all those things which are generally accepted within a given area in payment for goods and services or in settlement of debts. This functional definition is broad enough to include bank deposits, coins, paper money, and bullion.

In addition to serving as a medium of exchange, money is at the same time a standard of value, a yardstick or common denominator for measuring the relative value of different goods. Money has subsidiary functions as a standard for deferred payments in transactions to be completed in the future, as a device for transporting value from one place to another and as a compact store of value, an instrumentality for saving one's purchasing power until some future date. Certain types of money are used to settle balances due between nations.

Through these uses, money enables men to carry out the complex operations of a modern capitalistic economy, such as the division of labor, the transfer of savings into productive enterprise, the making of computations of costs and profits to guide business decisions, and the appraisal of credit as the basis of earning capacity and wealth.

Currency and Bank Deposits.—Since checks drawn against deposits in commercial banks are widely accepted as a means of payment, demand deposits are commonly classified as money. Time deposits in commercial banks, being readily convertible into either currency or demand deposits, are sometimes, with less reason, included as part of the money supply. The volume of money in a modern nation is usually considered to include net demand deposits of commercial banks as well as coin and currency.

Mutual savings and postal savings bank deposits, however, are seldom classified as money because they are not used to settle ordinary transactions as are the demand deposits of commercial banks. They are ordinarily grouped with other liquid assets which are easily convertible into money but whose conversion would not, under normal circumstances, affect the total volume of currency plus net demand deposits of commercial banks. Interbank deposits are excluded as being merely a duplication of deposits of individuals and corporations.

A theoretical distinction is sometimes made between currency and bank deposits in that the former is universally accepted as money without reference to the credit status of the person who offers it in payment, whereas bank checks are not. But since the two forms of money are normally interchangeable, this distinction is merely a matter of definition, rather than basic economic function.

Most transactions today are settled by means of bank checks. The amount of currency in circulation reflects primarily the needs of the people and of businesses to have sufficient cash in their wallets or in their cash drawers for day-to-day operations, payroll requirements, and some hoarding, as well as the adequacy and cost of commercial banking facilities available.

THE MONETARY AND BANKING SYSTEM.—The term "monetary system," used in a narrow sense, embraces a national monetary unit, the standard money, and coins and currency expressed in this unit. But since bank credit constitutes a much greater proportion of an economically advanced nation's money supply than currency, the term is properly employed in a broader sense to include bank demand deposits.

National money units originated from the minting of precious metal into coins which bore the designs of sovereigns attesting to the weight and fineness of the pieces. Most modern nations, with the notable exception of Great Britain with its units of pounds, shillings, and pence, have standard units which are divisible by 100, such as dollars and cents, francs and centimes, pesos and centavos.

Today governments and central banks usually maintain a monopoly over the issuance of metallic and paper money. In former times, privately owned banks issued their own bank notes, subject to legal requirements with respect to reserves. Private banking institutions now create bank deposits by making loans or by buying securities. These banks, however, are subject to close government regulation. Moreover, the total volume of bank deposits is subject to a considerable degree of

control by the government and the central bank—a far greater degree, actually, than in the case of currency in circulation.

Monetary Standards.—Standard money is that type of money into which coins, currency, and deposits are convertible, so that it establishes the value of these types of money. Standard money may consist of some commodity, coins, or an inconvertible currency unit.

In early civilizations, widely desired forms of wealth such as cattle, sheep, or oxen were commonly used as units of value. These standards were gradually supplanted by precious metals which were universally prized for purposes of adornment and possessed such advantages as durability, portability, and malleability. As currency systems developed, money units such as the talent, the shekel, and the drachma were defined, consisting of specified quantities of the standard metal of a given fineness. When paper money came into use, it usually bore the promise of a bank or government to redeem the notes or certificates with stated quantities of the standard metal.

Prior to World War I, gold coins were the standard money of most major nations. This international gold standard kept quotations of national monetary units stable in terms of one another. Difficulties arising out of World War I forced almost general abandonment of the gold standard. Doubts about the future of the standard only became general when Great Britain abandoned it in 1931. Under **bimetallism,** standard money consists of both silver and gold. A currency is made convertible into either gold or silver coin at the option of the holder, with the "mint ratio" between the two metals fixed by law. Bimetallism prevailed in the United States and a number of other countries until the latter part of the nineteenth century.

MANAGED MONETARY SYSTEMS.—Monetary systems of the world today are described as "managed" because they do not provide for free convertibility into a metallic standard, so that the value of the currency units depends largely upon government management. Most of these systems are spoken of as **"fiat,"** because the standard is given value by the government fiat or edict, rather than by virtue of any "intrinsic" value the material possesses as a precious metal. The term fiat has unsavory connotations because historically abandonment of convertibility of a currency into gold or silver often led to uncontrolled depreciation. But this was not true of the pound sterling during the Napoleonic wars or the greenback dollar, in the United States, in the conflict of 1861–1865, and the technique of management of fiat standards has been greatly developed in recent years. Techniques of money management are discussed in a later Section.

The extent to which a managed monetary system contributes to the economic well-being of a nation depends largely upon the integrity and skill of its managers. Automatic restraints imposed by the gold standard had disadvantages as well as advantages, and history shows that the standard had to be abandoned under emergency conditions in any event. There is little prospect today of a return to the free international gold standard within the early future even under the most favorable circumstances.

Types of Money.—Money is variously classified, depending upon the purposes in view. The common classes of money encountered are:

1. **Standard money** is the basic money of redemption of a nation's monetary system, which determines the value of all other kinds of money of which the system is composed. Modern standards have been **bullion standards,** consisting of a specified quantity of precious metal (e.g., the gold bullion standard prevailing in Great Britain between 1925 and 1931); **coin standards** (e.g., the gold coin standard in the United States until 1933); **exchange standards,** under which a currency is convertible into the currency of some other country at a more or less fixed ratio (e.g., the dollar exchange standard prevailing in Latin American countries); **fiat standards,** consisting of inconvertible paper currency units.

2. **Commodity money** is metallic and other money whose intrinsic value is equal to the denomination it bears. Gold coins which circulated in the United States prior to 1933 were a true example of commodity money.

3. **Token money** is coins whose intrinsic value as metal is less than the denominations they bear. Examples: the United States silver dollar and fractional coinage.

4. **Fractional money (or subsidiary coinage)** is metallic or paper money bearing denominations which are fractions of the standard money unit. Examples: quarters, dimes, nickels, and pennies in the United States.

5. **Representative money** is paper money backed 100% by coin or bullion. Example: gold and silver certificates in the United States.

6. **Credit or fiduciary money** is paper money backed by promises to pay by the issuer, whether a government or a bank, rather than by coins or bullion. The use of credit money permits expansion and contraction of the volume of currency to meet the nation's needs. Example: Federal Reserve notes.

7. **Fiat money** is paper or coins whose value is fixed by government edict at a level that bears no relation to intrinsic commodity value. In the past, fiat money was generally repudiated credit money. Examples: continental currency of the Revolution or greenbacks issued during the Civil War. With the development of monetary management techniques, fiat money has remained stable in value over extended periods of time.

8. **Legal tender** is any money a debtor is authorized by law to offer in payment of debts. In 1933 Congress gave to all types of money in the United States unlimited legal tender status.

9. **Lawful money** is money that may be used for specified purposes under authority of law. The term has a special meaning in the United States today to define the type of money which Federal Reserve banks may include in their legal reserves against their own deposit liabilities.

THE ROLE OF CREDIT.—The term "credit" has different meanings even in financial usage, but it invariably refers to the use of a **promise to pay** in the future. Credit is thus an invaluable supplement of money in the modern economy—in fact, as has been seen, some types of credit, such as bank deposits and checks drawn against them, are commonly included in the monetary structure of a nation.

Credit is based upon the confidence of the lender that the borrower will fulfill his promise to pay his debt. Confidence in the borrower depends upon his willingness to pay (character) and upon his ability or capacity to pay, which is determined by his present or anticipated future

ownership of money or real wealth; i.e., by his capital and his earning power. In government credit, capacity to pay rests upon the taxing power.

Credit is classified in different ways. Cash credit arises from loans of money; merchandise credit, from sales of goods for future payment. Instalment credit provides for periodic payment of the sum due over a period of time.

Creditors include banks, business concerns, individuals, and governments, and all of these groups are borrowers as well. Credit extended to business enterprise to finance the production and distribution of goods for sale is classified either as **investment credit** or as **commercial credit.** The former finances the acquisition of plant and equipment, i.e., the means of production, while commercial credit is used to pay for current operations: purchases of raw materials and the payment of wages. In actual practice this distinction is not always clear-cut, since it sometimes is used to refer to the type of instrument that evidences the credit or the length of maturity.

Consumer credit, which has acquired great importance only in recent decades, refers to credit advances made to individuals to enable them to acquire goods or services for personal consumption. This term does not ordinarily include loans secured by liens on residential property to finance home ownership or improvements.

Real estate credit consists of loans secured by land and buildings, industrial as well as residential.

Bank credit is used with two quite different meanings: (1) to describe a loan made by a bank, as when a borrower "obtains bank credit," and (2) to refer to bank deposits, as when reference is made to the total volume of bank credit outstanding.

Credit performs the same cardinal function as money, serving as a means of payment. Credit operations vastly facilitate the production and sale of goods. In fact, credit permeates every section of the national economic life. As one writer put it, credit constitutes "the promises men live by."

THE VALUE OF MONEY.—The commodity price level determines the value of money, for it determines what money will buy. There is no all-inclusive measure of the price level, but index numbers of wholesale and retail prices do provide a convenient approximate measure of changes in the value of money from time to time.

Sometimes changes in the gold content of a currency have been used to measure changes in the value of money. But people within a country are concerned primarily with the purchasing power of their currency in terms of goods and services, not gold. Similarly, it is incorrect to say that the devaluation of the dollar gave the United States a "59 cent dollar." The dollar always equals 100 cents, devaluation having only reduced the number of grains of gold which may be purchased with each dollar.

The relation between the money supply and prices has been extensively studied in economic literature. The **quantity theory of money** holds that prices are determined largely or entirely by the volume of money outstanding. This theory has not been substantiated by experience. The velocity of turnover of money and the volume of production have proved equally important as determinants of the price level. The

interaction of the major factors affecting the price level has been expressed in the formula $MV + M'V' = PT$, where M is the volume of metallic and paper money oustanding, V its average velocity of turnover, M' the volume of bank deposits, V' its average velocity of turnover, P the price level and T the volume of goods and services turned over. This formula expresses a truism, since all goods and services exchanged, at the prevailing price level, must be paid for with money. However, it helps to clarify the role played by each of these factors in major changes in the level of prices. Statistics of the **velocity of turnover** of bank demand deposits are compiled by the Federal Reserve System, but no such data can be compiled for coin or currency.

INTERNATIONAL MONETARY SETTLEMENTS.—There are two kinds of international money: (1) a national currency unit which is acceptable in a number of other countries as a means of payment, and (2) a medium that is generally acceptable in virtually all countries, namely, gold.

Transactions in international trade are settled in the first instance by means of drafts or other credit instruments drawn in terms of some national monetary unit such as dollars, pounds, or francs. If every nation's trade, service, and capital transactions with every other nation were always in precise balance, there would be no need for any type of international money. The credit instruments drawn between two countries would simply cancel out. But such a situation has never existed. Even if each nation's transactions were balanced with all other nations taken collectively, it would owe money to some nations and be owed money by others. Settlements of such remaining balances between nations could be effected by payment in drafts drawn in terms of the monetary unit of one nation that is generally acceptable. Thus, during the nineteenth century the British pound sterling was widely used as the unit of payment between nations, and the London money market acted as a clearing house for a large part of the world's trade. Shipments of gold accomplish this same end.

Although gold is still universally acceptable as international money, it is not freely used as in the past because many nations having an adverse balance of payments do not possess adequate gold stocks, and to prevent depletion of gold reserves have instituted controls over foreign exchange dealings and foreign trade.

Establishment of the International Monetary Fund and the International Bank for Reconstruction and Development has introduced a new element into international monetary relations. These institutions seek to restore stability, within limits, in foreign exchange quotations, and to provide for international collaboration to bring international payments into closer balance.

Monetary System of the United States

EARLY MONETARY HISTORY.—The first money of the United States consisted of notes issued by the Continental Congress. These became so nearly worthless that the phrase "not worth a Continental" still survives. In 1792 Congress adopted a bimetallic standard, defining the dollar in terms of both silver and gold at a mint ratio of 15 to 1 between them. Although bimetallism was not legally abandoned

until 1873, silver dollar coins were virtually unknown and gold coins actually circulated only during the latter part of the period. A satisfactory bank note circulation was supplied for a time by the first Bank of the United States, founded in 1791, and the second Bank of the United States, chartered in 1816. State chartered banks also issued notes, but the banking laws of many states were lax and such notes often depreciated in value.

To help finance its needs during the Civil War, the federal government resorted to the issue of fiat money—United States notes known as **"greenbacks."** The bimetallic standard had been suspended with the suspension of specie payments (redemption of paper money with coin) at the time. Also, to widen the market for government bonds and to end the abuses of state bank notes, the National Banking System was set up in 1863. State bank notes were taxed out of existence, and until 1914 national banks had a monopoly of bank-note issue. The bimetallic standard was ended by law in 1873, although currency was not redeemable at the time, and the country returned to an exclusive gold coin standard in 1879.

Expansion of silver production in the West and falling prices caused political agitation for the greater monetary use of silver as money which has continued intermittently to the present day. The Bland-Allison Act of 1878 and the Sherman Silver Purchase Act of 1890 required the Treasury to buy larger quantities of silver for coinage. In 1896 excitement ran high when Bryan campaigned for the presidency on a platform calling for the free coinage of silver at a fixed ratio of 16 to 1. He lost, and the Gold Standard Act affirmed the gold dollar as the standard, the silver issue remaining dormant thereafter until 1933.

FEDERAL RESERVE CURRENCY.—A major defect of the currency system before 1914 was its rigidity. When the public demand for currency increased, as in periods of financial strain, national banks could not issue more notes unless they had government bonds to pledge as collateral. The panic of 1907, when clearing house certificates were used as currency for a time because of a lack of national bank notes, emphasized the gravity of the problem.

One of the express purposes of the Federal Reserve Act of 1913 was to provide an elastic currency. Member banks could draw currency from the Federal Reserve banks as needed, and could borrow from these institutions or rediscount eligible commercial paper with them if they did not have sufficient deposit balances to do so. The Federal Reserve banks, in turn, could issue two types of currency: Federal Reserve bank notes and Federal Reserve notes. The former, secured by government obligations, never became a permanent part of the currency because the latter proved to be adequate. Federal Reserve banks are now required to maintain a reserve of at least 25% in gold certificates against Federal Reserve notes, the balance of the security being government securities or eligible commercial paper.

It was intended that Federal Reserve currency would replace all other types of paper money. National bank notes, however, were not retired until 1935, while silver certificates and greenbacks are still in use as part of our permanent paper currency.

The Federal Reserve Act with its later amendments has provided the country with a thoroughly flexible currency whose volume is responsive

to changes in the public's demands. The huge increase in currency in circulation which occurred during World War II demonstrated the System's ability to meet any demands for currency that are likely to arise in the future.

THE MONETARY CRISIS OF 1933.—Hoarding of currency developed on a wide scale during 1931–1932, both a result and a cause of the epidemic of bank failures, and led to the temporary closing of all banks in March, 1933. Hoarding of gold coin and bullion in the final phase of the crisis greatly intensified the difficulty. On March 10 President Roosevelt issued an order prohibiting gold exports except under government license, and on April 5 an order which called in all gold and gold certificates from public circulation. Thus, the old gold standard codified by the Gold Standard Act of 1900 was abandoned.

In an effort to achieve "reflation" of the commodity price level Congress passed the **Thomas Amendment,** Title III of the Agricultural Adjustment Act of May 12, 1933, which provided that:

1. The President could reduce the gold content of the dollar up to 50%, fix the weight of the silver dollar, and provide for unlimited coinage of both metals at the ratio so fixed.
2. The President could direct the Treasury to issue up to $3,000,000,000 of additional greenbacks.
3. The President could direct the Secretary of the Treasury to agree with the Federal Reserve System to have the Reserve banks purchase up to $3,000,000,000 of additional government securities in the open market.

The additional greenbacks were never issued, but the authorization to do so was not allowed to lapse until 1945. The Federal Reserve banks voluntarily purchased several times as much in government securities in the following years, chiefly to meet a huge increase in currency demand. By far the most important part of the Thomas Amendment, however, was the change effected under it in the gold content of the dollar.

THE NEW GOLD STANDARD.—In July, 1933, President Roosevelt refused to agree to the proposal of the London Economic Conference then being held to stabilize the gold value of the dollar anew. In October, the Reconstruction Finance Corporation commenced a program of buying gold at progressively higher prices, thus achieving a progressive *de facto* devaluation of the dollar in terms of gold. But a break in government bond prices and failure of commodity prices to rise caused the abandonment of the experiment with a fluctuating dollar, and the country returned to a modified gold standard, with a devalued dollar, early in 1934.

The Gold Reserve Act of January 30, 1934, which has replaced the Gold Standard Act of 1900, provides:

1. The President for a 3-year period may revalue the dollar at between 50% and 60% of its pre-1933 gold content. This authority was extended on several occasions, but expired June 30, 1943.
2. Title to the gold held by Federal Reserve banks was transferred to the Treasury, the Reserve banks receiving credits with the Treasury for the gold at the old price of $20.67 per ounce. These credits could be redeemed with a new type of gold certificate authorized by the law, which can be held only by Federal Reserve

banks and represent as much gold as the President has proclaimed under this act to be the gold content of the dollar.

3. Gold coinage and the redemption of money in gold were abrogated.
4. Out of the "profit" from revaluation of the Treasury's gold stocks, $2,000,000,000 of gold was set aside as an **Exchange Stabilization Fund** for buying and selling gold and foreign exchange to stabilize the exchange value of the dollar.
5. The President was authorized to reduce the weight of the silver dollar and to pay a higher price for silver mined in this country than for foreign silver.

On January 31, 1934, the President issued a proclamation reducing the gold content of the dollar to 59.06% of that fixed by the Gold Standard Act of 1900, or from 23.22 to 13.714 grains of fine gold. The legal price of gold was thereby raised from $20.67 to $35 an ounce, the troy ounce weighing 480 grains. This is the present gold content of the dollar, and since 1943 only Congress can direct a change in it, as the President's power to proclaim a different gold content has lapsed. Section 5 of the Bretton Woods Participation Act of July 31, 1945 specifies that "unless Congress by law authorizes such action, neither the President nor any person or agency shall on behalf of the United States propose or agree to any change in the par value of the United States dollar . . ."

Effects of Devaluation.—Unlike most other devaluations in history, the United States was not forced to depreciate its currency in 1933–1934. This move was undertaken on the theory that it would raise the domestic price level. Actually, the United States is so largely self-sufficient that domestic prices of relatively few commodities were determined by prices abroad, particularly at that time when foreign trade was restricted by depression influences, so that the effect on the price level was quite limited.

The chief effects of devaluation were to stimulate gold production and its flow to the United States. From the end of 1933 to the time of the Munich crisis in 1938, the monetary gold stock of the United States rose from $4,000,000,000 to $13,000,000,000.

Concentration of well over half the world's gold stocks in the United States forced other nations to adopt more and more restrictions on foreign exchange and trade, to protect their depleted gold reserves. This development emphasized anew the need for closer international monetary cooperation, such as is now provided by the International Monetary Fund and the International Bank for Reconstruction and Development.

It has been urged from time to time that gold should be restored to general circulation. In view of the pernicious effects of gold hoarding during 1931–1933, this proposal has been opposed in official circles.

SILVER OPERATIONS.—As contemplated by the Thomas Amendment, the Treasury began a program of buying newly-mined domestic silver in December, 1933. The price paid was $1.29 per ounce less a seigniorage or charge for conversion of bullion into coin of 50%. A few months later the silver bloc in Congress succeeded in pushing through the **Silver Purchase Act of 1934,** which authorized the nationalization of silver and provided that the Secretary of the Treasury purchase silver until the price reaches $1.29 an ounce or the Treasury's silver holdings valued at that price equal 25% of the monetary value of its combined stocks of gold and silver. During subsequent years the

heavy inflow of gold to the United States automatically increased the amount of silver which the Treasury was required to buy to reach this goal. However, the Secretary of the Treasury has full discretion in timing silver purchases. Silver has been purchased exclusively abroad under this law.

The seigniorage charge on domestically mined silver was reduced several times, which meant that higher prices were paid silver producers. The Act of July 6, 1939, provided for the purchase of domestic silver at 71.11¢ an ounce. In July, 1946, Congress raised the Treasury's buying price for silver to 90.5¢ an ounce.

During World War II silver was urgently needed by industry for war purposes, and the Treasury found it necessary to ask Congressional authority to make the metal available from its stocks. The Green Act of 1943 permitted the Treasury to release silver for war purposes under restrictions. During the war the United States loaned 410,000,000 ounces of silver to allied nations under noncancellable provisions that the same quantity of silver must be returned to the Treasury within 5 years of the legal date of the end of the war.

Silver operations of the United States Treasury after 1933 curtailed monetary use of the metal abroad. The high price of the metal forced China to abandon the silver standard. India adopted restrictions on exports of silver and finally replaced her silver subsidiary coinage with other metals.

MONETARY ASPECTS OF BANK CREDIT.—Viewing bank credit as part of the supply of money, there are three aspects which deserve particular attention: (1) its importance, (2) its source, and (3) its flexibility.

1. It has been estimated that up to 90% of the nation's business is transacted by means of bank credit. In recent decades the volume of bank deposits has been from 5 to 8 times greater than the amount of currency in circulation.

2. Prior to 1933, the greater part of commercial bank deposits were created by the making of loans by banks. Since then, bank investments, especially government securities, have become a major factor affecting the volume of bank deposits. The growth of monetary gold stocks has also been an important factor at times.

3. The Federal Reserve System provides a mechanism whereby bank credit, as well as currency, can be expanded in response to demand. When loans were the source of most deposits, the volume of bank credit was largely responsive to the demands of business and agriculture. Since 1933, however, and especially during World War II, the volume of bank credit has also reflected the Treasury's credit requirements. In addition, the banks now finance, directly or indirectly, a large amount of credit to consumers.

MONEY IN CIRCULATION.—Fig. 1 shows the composition of the bullion and currency supply of the United States at the end of June, 1946. Standard silver dollars, it will be noted, are mostly held by the Treasury against outstanding silver certificates. Silver bullion is valued for monetary purposes at $1.29 per ounce. Silver certificates are backed 100% by standard silver dollars and bullion. They have been issued in an amount equal only to the cost of silver held to the Treasury however. The seigniorage, or difference between the cost of silver and $1.29 an

	Held by Treasury as Security for Gold and Silver Certificates	Treasury Cash	Held by Federal Reserve Banks and Agents	In Circulation	Total Outstanding
Treasury currency:					
Standard silver dollars	$ 336	$ 15	$ 2	$ 140	$ 494
Silver bullion	1,909	...	...	...	1,909
Silver certificates	...	...	218	2,025	2,244
Treasury notes of 1890	...	...	...	1	1
Subsidiary silver coin	...	13	23	843	879
Minor coin	...	4	5	317	326
United States notes	...	2	28	317	347
Federal Reserve bank notes	...	1	4	464	469
National Bank notes	...	1	(a)	114	115
Total Treasury currency	$ 2,245	$ 37	$ 280	$ 4,222	$ 4,539 (b)
Gold	18,153	2,117	...	...	20,270
Gold certificates	...	...	18,103	50	18,153
Federal Reserve notes	...	98	768	23,973	24,839
Total	$20,398	$2,251	$ 3,864	$28,245	(c)

(In millions of dollars)

(a) Less than $500,000. (b) To avoid duplication, the amount of silver dollars and bullion held as security against silver certificates and Treasury notes of 1890 outstanding is not included in total Treasury currency outstanding. (c) A grand total would have no significance because gold and gold certificates are chiefly reserves against other types of money and would represent duplication.

FIG. 1. Bullion and Currency of the United States, June 30, 1946

ounce, has not been used as a basis for the issuance of silver certificates. Treasury notes of 1890 are secured by an equal dollar amount of standard silver dollars. These notes are being cancelled and retired on receipt. United States notes (greenbacks), a souvenir of Civil War days, are fiat currency, but the Treasury maintains a reserve of $156,000,000 of gold against them. Federal Reserve bank notes and national bank notes are in process of retirement.

Standard silver dollars weigh 371.25 grains of fine silver. Subsidiary silver coins—half dollars, quarters and dimes—contain 6.47% less silver than their proportion of a standard silver dollar, to discourage melting when the silver dollar rises. Minor coins are nickels and pennies.

Despite the term "standard silver dollar," silver is in no sense standard money. Silver coins and certificates are worth far more than their silver content only because they are convertible into standard dollars at the Treasury.

Gold listed under "Treasury cash" in Fig. 1 included $1,800,000,000 that had been placed in the Exchange Stabilization Fund and the $156,000,000 held as a reserve against greenbacks. The Exchange Stabilization Fund gold was subsequently used to pay in the United States subscription to the International Monetary Fund.

All but $50,000,000 of the outstanding gold certificates listed consisted of certificates issued under the Gold Reserve Act of 1934 to the Federal Reserve banks. The total of $18,103,000,000 shown as "held" by Federal Reserve banks included $15,288,000,000 of credits with the Treasury payable in gold certificates. All gold certificates are backed 100% by gold bullion at the rate proclaimed by the President under the Gold Reserve Act.

Federal Reserve notes are obligations of the United States and a first lien on all the assets of the issuing Federal Reserve bank. They are secured by deposit with the Federal Reserve agents in the Federal Reserve banks of a like amount of gold certificates, eligible paper, or Treasury securities. Federal Reserve notes not secured fully by gold certificates must have a 25% reserve in such certificates.

In the functioning of the United States monetary and credit system, Federal Reserve credit supplements gold in providing a basis for expansion. Because it can be increased or decreased, Federal Reserve credit, not monetary stocks, actually limits the expansion of currency and bank deposits. At the end of June, 1946, Federal Reserve credit outstanding amounted to $24,000,000,000.

During World War II, currency in circulation increased from $7,000,000,000 to $28,000,000,000. This huge rise reflected chiefly the great expansion in payrolls and retail trade. Many of those who received high wartime wages previously were in low-income groups and were not accustomed to using bank accounts or lived in communities with inadequate banking facilities. To an extent black markets and tax evasion also caused increased use of cash.

THE PRESENT MONETARY SYSTEM.—The United States is now on the conditional gold bullion export standard. Gold is purchased freely by the Treasury at a fixed price of $35 an ounce, less ¼ of 1% as a handling charge, but it is obtainable only for export subject to Treasury license. When sold, the price is $35 an ounce, plus ¼ of 1% handling charge. While gold coinage and the domestic redemption of

money with gold have been abolished, the Treasury has granted licenses to export gold when this is desired for ordinary exchange transactions.

The world price for gold was largely set by the United States Treasury after 1934. Since the larger part of the world's stock of gold was sold to the Treasury between 1934 and 1941, the American dollar actually maintained the value of gold at that time.

But gold no longer exercises the automatic restraints upon our monetary and credit system that it did before 1933. The United States has adopted numerous techniques of money management, so that the present monetary system resembles far more the managed fiat money systems of countries like Great Britain than the traditional gold standard. Monetary and credit management in the United States is discussed in detail below.

The Exchange Stabilization Fund was given an operating balance of $200,000,000 with the Federal Reserve Bank of New York that is used by the Treasury for buying and selling gold. The Act of July 31, 1945, providing for United States participation in the International Monetary Fund and the World Bank, authorized the Secretary of the Treasury to use the $1,800,000,000 of gold in the Stabilization Fund to pay part of the United States subscription to the Monetary Fund.

Banking Systems

THE EVOLUTION OF BANKING.—As early as 2000 B.C., the Babylonian temples were in the banking business, lending at high rates of interest gold and silver which had been left with them for safekeeping. Fifteen hundred years later Greek temples also were depositaries and loaned temple funds at interest. Private banking attained a high state of development in Greek and Roman times.

Banking as a business disappeared during the Dark Ages because of the prejudice of the Christian Church against interest. This left money lending free for the Jews, who kept the banking tradition alive and dominated the field for centuries. Eventually there emerged powerful private banking firms such as the House of Rothschild, financier to princes and empires.

One of the most famous banks in the modern sense was the Bank of Amsterdam, founded in 1609. Essentially a depositary for gold and silver, the bank's income was derived from fees levied on deposits. It devised a system whereby deposits could be transferred on the books of the bank by written orders which resembled modern bank checks.

The Bank of England was granted a charter in 1694, in return for a perpetual loan of £1,200,000 to the government. The bank was successful from the start. Thanks to the prudent temper of the English, it avoided the pitfalls which had wrecked John Law's Royal Bank of France early in the eighteenth century, and has survived as a pillar of strength to this day.

Throughout the eighteenth and nineteenth centuries, banking developed rapidly with the expansion of industry and trade. Each nation evolved distinctive forms reflecting the traits of its people and its economic life. Privately managed banks predominated. During the nineteenth century, however, the policies of the Bank of England became

increasingly public in character, foreshadowing the more recent growth of central and government-controlled banking.

THE ROLE OF COMMERCIAL BANKS.—The banking business may be defined briefly as dealing in money and instruments of credit. The term "commercial bank" is usually applied to a lending institution which accepts demand deposits. In the United States it is distinguished particularly from mutual savings banks and savings and loan associations, which accept only time deposits or their equivalent.

Note issue was at one time a prime function of most commercial banks. Today paper money is issued in most countries only by the central banks. Note issue has become far less important than demand deposits, which are transferable from one owner to another by means of bank checks or drafts.

Commercial loans constituted the chief business of the banks in most countries until recent years. Funds were advanced to manufacturers or merchants on their own promissory notes, or drafts drawn on customers were discounted.

The bank thus substituted its own credit for that of the borrower or his customers. The credit of the bank is transferable and is generally accepted as a means of payment. A bank loan is thus equivalent to transforming the credit of a borrower into money.

In recent decades, banks have also performed an important function through their purchases of securities, particularly government obligations. Whenever the Treasury finds itself confronted with deficits which cannot be completely financed by borrowing from investors other than banks, it must depend upon the banking system to supply the balance of its requirements. This was especially apparent during wartime, when the government relied heavily upon the banks to supply the funds needed to prosecute the war.

The role of the commercial banks in modern economic life is vital: they provide the essential mechanism through which most payments are cleared and they create the deposits which are the medium for these payments.

How Commercial Banks Create Deposits.—Bank deposits increase when commercial banks make loans and decrease when loans are paid off. Similarly, deposits expand when banks buy securities and contract when banks reduce their holdings of securities.

When a person borrows from a bank, the normal procedure is for the bank to credit the borrower's checking account for the amount of the loan. The moment that credit is entered on the borrower's ledger sheet, bank deposits are thereby increased. If the borrower then draws a check on his account for the full amount of the loan, the new deposit is thereby transferred to the ownership of another when the recipient has deposited that check in his bank. But when the loan is paid off, the borrower gives the bank his check for the amount due. This check reduces the borrower's bank balance and total bank deposits.

Essentially the same thing happens when a commercial bank buys securities. The seller of the securities receives the bank's own **cashier's check** which he deposits with his bank. The bank which receives this check as a deposit naturally shows an increase in its deposits. Likewise, when a bank sells securities from its portfolio to a nonbank investor,

the latter's check in payment for the securities reduces his deposit balance with his bank.

In addition to changes in bank loans and investments, other factors which affect the total volume of bank deposits are changes in (1) interbank deposits, (2) monetary gold stocks, and (3) currency in circulation.

1. **Interbank deposits,** balances of commercial banks with other banks, are affected by a variety of factors, such as the extent to which interior banks prefer to keep excess cash with city correspondents instead of having such funds invested in securities. Interbank balances are frequently excluded from computations of bank deposits, however, because for the banking system as a whole they represent a duplication of bookkeeping credits. On a consolidated balance sheet for all banks, the item "due to banks" (interbank deposits) obviously must equal "due from banks," and the two items cancel out.

2. **Changes in a nation's monetary gold stocks** normally result in corresponding changes in commercial bank deposits. When gold is imported into the United States, it is deposited in a Federal Reserve bank for sale to the Treasury, which issues its own check in payment. The seller of the gold deposits this check to the credit of his account in his commercial bank, and total bank deposits are thereby increased.

3. **An increase in the amount of currency** in the hands of the public reflects withdrawals of cash from banks by depositors, which reduces deposits. Conversely, bank deposits increase when the public reduces its holdings of currency by depositing cash with banks.

THE ROLE OF CENTRAL BANKS.—Functions of central banks vary, but they usually include a monopoly, or near-monopoly, of note issue, discounting of paper or making direct advances to commercial banks, acting as fiscal agent for the government, open market operations, foreign exchange dealings, services for foreign central banks, depositary for reserve funds of commercial banks, and controls over the volume of bank credit and bank lending policies.

In the United States, where the central bank consists of the twelve Federal Reserve banks and the unifying Board of Governors of the Federal Reserve System, a distinctive function is the supervision of certain operations of commercial banks and the administration of a great mass of regulations.

The central bank is usually the basic source of the nation's bank credit, and as a result exercises great influence upon credit conditions. Through discounting and lending, individual commercial banks can obtain funds to meet demands of depositors or borrowers. Open market operations, usually consisting of the purchase or sale of government securities, create or reduce the banks' deposit balances at the central bank in the same way that commercial bank purchases and sales of securities create and reduce their deposits. Open-market operations are thus an effective instrument for broadening or contracting the credit base of the entire banking system.

The central bank has become the cornerstone of modern banking systems. Although the capital stock is usually privately owned, a central bank is in most respects a government agency. Its policies are designed to promote the broad public interest, although private and political interests may disagree on how this should be done.

OTHER CREDIT INSTITUTIONS.—Commercial and central banks are supplemented in all countries by other lending and investing institutions. These include savings banks, mortgage banks, agricultural credit banks, personal loan and finance companies, industrial banks, credit unions, insurance companies, cooperative banks, and a great variety of governmental lending agencies.

In the United States, mutual savings banks hold about one-third of total thrift deposits. Savings and loan associations have made a large proportion of all mortgage loans. The lending activities of government agencies have been expanded greatly since 1932, particularly the Reconstruction Finance Corporation and its subsidiaries. Also, government guaranties have become important in financing homes and public housing projects. The Export-Import Bank has grown to prominence in the field of international lending.

Equalization accounts have been employed by a number of countries to smooth out fluctuations in foreign exchange. During the 1930's, the British Exchange Equalization Fund was especially successful in maintaining exchange stability within the so-called sterling bloc, nations whose currencies were tied to the pound sterling.

FOREIGN BANKING SYSTEMS.—The **British banking system** consists chiefly of the **Bank of England** and five large "joint stock" branch banks known as the "Big Five." The oldest and most famous of all central banks, the Bank of England, was privately owned for over two and a half centuries before it was nationalized in 1946. Prior to 1914, the Bank of England was the mainstay of the international gold standard. It has long cooperated closely with the government in developing policies to foster international trade, especially of the British Commonwealth. It has several subsidiary companies which extended credits to finance the reorganization or "rationalization" of various industries.

The joint stock banks, subject to little regulation by the government, are ruled largely by tradition. Credit policy in Great Britain is made effective by voluntary cooperation rather than law. Although not required to maintain specified legal reserves, as members of the Federal Reserve System are in the United States, almost every bank in the United Kingdom has a deposit account at the Bank of England.

The **Bank of France** plays a predominant role in the French financial system. It not only performs the usual functions of a central bank but is also the largest commercial bank in France. Other banks developed over a long period with little government regulation and include credit, investment, savings, agricultural, and cooperative banks. The credit banks are the most important, and each of the larger institutions has more than a thousand branch offices throughout the country.

The **Canadian banking system** consists of the **Bank of Canada**, ten large branch banks known as "chartered banks," and two long-established savings banks.

The Bank of Canada was established in 1934 after a thorough study of the organization and functions of other central banks. It is essentially a bankers' bank with the usual central banking functions. The chartered banks, established under the Banking Act of 1871, operate over 3,000 branches throughout Canada. There has been no bank failure since 1923, and note holders have experienced no losses since 1881.

Banking System of the United States

EARLY BANKING HISTORY.—The first bank in the United States was the Bank of North America, established by Robert Morris in Philadelphia in 1782, with a charter from the Continental Congress. Controversy arose over whether the federal government or the states had authority under the Constitution to charter banks. The Supreme Court upheld the chartering power of the federal government in 1819 and again in 1824, but in 1837 it upheld the constitutionality of state charters as well.

In 1791 Congress chartered the first Bank of the United States, advocated by Alexander Hamilton. Its charter expired in 1811 and was not renewed. Political opposition to the bank sprang partly from fear of domination by foreign interests that held a large part of the stock. A second Bank of the United States was established in 1816, but the renewal of its charter was vetoed by President Jackson in 1836 because of his opposition to eastern financial interests.

Prior to 1838 a bank charter could be obtained only by special legislative act. The New York **Free Banking Act of 1838** first provided for granting charters upon compliance with the statutory requirements.

Free banking spread rapidly. But the laws of many states, especially in the Middle West, were lax and serious abuses developed. Speculators and swindlers founded "wildcat" banks which issued bank notes against little or no security. Depressions brought waves of bank failures. Gradually, state banking laws improved in a number of states, particularly with respect to the reserve required against outstanding bank notes, the chief form of bank credit in those days. The tradition of free banking is today firmly established. Free banking contributed to the rapid growth of industry and trade and encouraged new enterprise, but the price paid by the public through bank failures at times was high.

From the standpoint of stability, American banking history makes a sorry comparison with Canada and England. From the standpoint of offering equality of economic opportunity, however, the record here compares favorably with other nations.

State and National Banks.—The **National Bank Act of 1863** provided for a system of banks to be chartered and supervised by the federal government, rather than the states. These national banks could issue bank notes against government bonds as security, and a prohibitive tax was imposed upon bank notes issued by state banks, which was calculated to eliminate state banking. Most of the banks then in existence did take out national charters, and came under the regulation of the Comptroller of the Currency in place of state bank superintendents.

State banking survived, however, and from 1885 to 1920 expanded rapidly. Inability to issue bank notes became less important with the increasing use of bank checks. Most state banking laws were considerably more "liberal" than the National Bank Act. By 1900, the number of state banks exceeded the number of national banks.

The **McFadden Act of 1927** was intended to equalize the status of national with state banks. It enlarged the powers of national banks to make real estate loans, permitted them to acquire branches where state banks possessed this authority, and relaxed several restrictive features of the National Bank Act.

The term "state bank" is normally used to include state-chartered trust companies which accept demand deposits. The trust business of state banks is substantially greater than that of national banks, due partly to the competitive handicaps of the latter until passage of the McFadden Act.

Today there are about 9,000 state-chartered commercial banks and 5,000 national banks. Many of the state banks, however, are relatively small. National banks hold well over half of the combined assets of both types of institutions.

In a sense, therefore, the United States has not a single banking system but 49 banking systems. Bankers refer to it as a "dual system" of state and national banking.

THE FEDERAL RESERVE SYSTEM.—In 1908, following the panic of 1907, Congress created a National Monetary Commission to investigate thoroughly the whole field of banking and currency and to recommend legislation. The eventual fruit of its work was the Federal Reserve Act of 1913, a most significant landmark in banking legislation.

A current interpretation of the **Federal Reserve Act**, including later amendments, would state the objectives broadly as: (1) the establishment of an elastic currency and credit system, (2) the inauguration of a nation-wide collection system, (3) better bank supervision, (4) aid in government financing, and (5) national credit management.

The Federal Reserve System consists of (1) a Board of Governors, (2) twelve Federal Reserve banks with 24 branches, (3) the Federal Open Market Committee, (4) the Federal Advisory Council, and (5) member banks.

1. The **Board of Governors** is composed of seven members appointed by the President and confirmed by the Senate. It is the directing agency of the system, and its powers were greatly enlarged by the Banking Act of 1935. Members are appointed for 14 years, and a term expires every 2 years. One of the seven governors is appointed as chairman.

2. The **Federal Reserve banks,** one located in each of the twelve Federal Reserve Districts (see Fig. 2), operate as central banks and supervise the member banks in each district. Each bank has its own board of directors and officers headed by a President, but its policies are largely determined by the Board of Governors.

3. The **Federal Open Market Committee** consists of the members of the Board of Governors and five presidents of Federal Reserve banks, elected annually. Assisted by a small advisory staff of "associate economists" and specialists, it formulates policies with respect to the purchase and sale of government securities by the Reserve banks.

4. The **Federal Advisory Council** is composed of twelve members, usually commercial bankers, one elected by the directors of each of the Reserve banks. Its function is purely advisory.

5. **Member banks,** numbering about 7,000, include all national banks and those state banks that apply and are accepted for membership.

The Federal Reserve Act provided for twelve regional banks rather than one central bank. This plan reflected the traditional American distrust of centralized financial control and was intended better to serve the diverse regional requirements of the nation. Such decentralization was found to involve serious disadvantages, and the tendency since

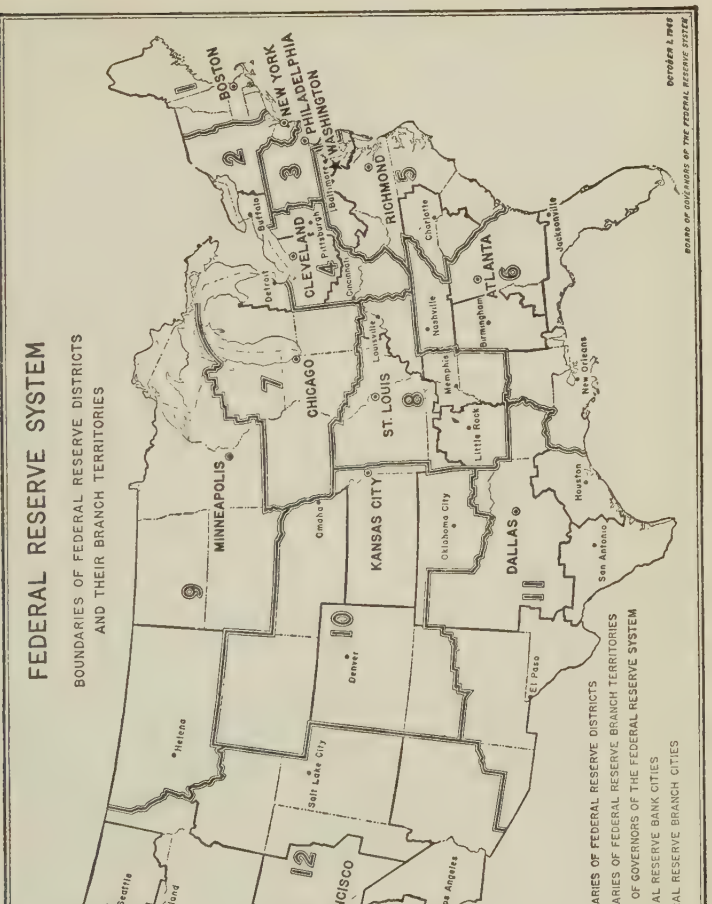


FIG. 2. Map of the Federal Reserve System

1933 has been to increase greatly the authority of the Board of Governors in Washington.

The Board of Governors.—The Board of Governors of the Federal Reserve System, designated as the Federal Reserve Board before 1935, was given its present title by the Banking Act of 1935 to emphasize its enlarged powers with respect to credit management. Its chief powers include: (1) review of discount rates of the Federal Reserve banks; (2) review of the decisions of the Federal Open Market Committee, whose membership is numerically dominated by the board in any event; (3) raising or lowering reserve requirements for member banks within a specified range; (4) setting margin requirements on bank loans made for the purpose of buying or carrying listed securities; (5) regulation of consumer credit; (6) definition of the types of securities which member banks may purchase; and (7) fixing maximum interest rates payable by banks on time deposits. In addition, the board has broad discretionary authority which has been used as a basis for "direct action" in the shape of advice and instruction to banks to influence credit conditions. The board also presents recommendations to Congress for new banking legislation.

The board has its offices at the Federal Reserve Building in Washington, where it maintains a permanent research, statistical, legal, administrative, and supervisory staff. It issues a monthly publication, the Federal Reserve Bulletin, which is an invaluable source of authoritative data and statistics on money, banking, and business. The annual report of the board contains an analysis of banking and economic conditions and trends, summarizes the actions of both the board and the Open Market Committee.

Federal Reserve Banks.—Each Federal Reserve bank functions under a federal charter. Its stock is held by member banks, which must subscribe 6% of capital and surplus to stock of the Federal Reserve bank, of which sum only 50% is paid in, the rest being subject to call. Dividends are limited to 6% on the amount paid in.

Each Reserve bank has nine directors, three of whom are known as Class A directors, three as Class B, and three as Class C. Member banks elect Class A and Class B directors, one director in each class being chosen by small banks, one by medium-sized banks, and one by large banks. Class A directors are bankers, while Class B directors must be actively engaged in business or agriculture but not connected with a bank. Class C directors are appointed by the Federal Reserve Board and may not be bankers. One of the Class C directors is designated as Federal Reserve Agent, whose special duty is to provide close liaison with the Board.

The Federal Reserve banks are primarily bankers' banks, and their deposits consist chiefly of the legally required reserves of member banks. They also hold deposits of the Treasury, of foreign central banks and of nonmember banks whose checks they collect, but none for individuals or business concerns. Operations include note issuance, investment in government securities, lending to member banks, examination and supervision of member banks, collection of checks, and the performance of a variety of essential services for commercial banks and for the government.

Aside from representation on the Open Market Committee, the individual Federal Reserve banks have no major responsibility with respect to the formulation of credit policy. At times, nevertheless, their views have been very influential in shaping decisions of the Board of Governors. Their primary task is the administration of credit policies formulated by the Board.

Prior to 1933, one of the primary functions of the Federal Reserve banks was **rediscounting eligible paper** meeting the legal requirements and making direct advances to member banks. The latter were thereby able to obtain additional credit for currency or loans or to pay for new investments. Paper eligible for rediscount includes bankers' acceptances, commercial and industrial loans of a self-liquidating character with a maturity up to 90 days, and agricultural loans maturing up to 9 months.

Since 1933, however, most banks have usually sold government securities to meet demands for funds, rather than rediscounting or borrowing for the purpose. During World War II, large-scale purchases of government securities by the Federal Reserve banks provided member banks with the reserves required to support the vast wartime expansion of bank credit and currency in circulation. These operations are reflected in the consolidated statement of the twelve Federal Reserve banks in Fig. 3.

A very important service performed for the entire commercial banking system by the Federal Reserve banks is the **collection of checks** drawn on banks throughout the country, deposited in banks located elsewhere than the towns in which the paying banks are located. In 1945, the Federal Reserve Bank of New York handled 341,000,000 checks

Assets		Liabilities	
Gold certificates	$21,407	F. R. notes in actual circulation	$24,258
Redemption fund for F. R. notes	699	Deposits:	
Total reserves	$22,106	Member bank — reserve account	20,276
Other cash	384	U. S. Treasurer — general account	7
Discounts and advances	170	Foreign	545
Industrial loans	5	Other deposits	191
Acceptances purchased	–	Total deposits	$21,019
U. S. government securities:		Deferred availability items	3,158
Bills	–	Other liabilities	20
Certificates	11,824	Capital accounts	49
Notes	5,068		
U. S. bonds	5,636		
Total govt. securities	$22,528		
Total loans and securities	22,703		
F. R. notes of other banks	178		
Uncollected items	3,858		
Bank premises	44		
Other assets	161		
Total assets	$49,444	Total liabilities	$49,444

(In millions of dollars)

FIG. 3. Assets and Liabilities of Federal Reserve Banks, March 26, 1952

having a total value of $187,000,000,000. This service is provided by the **Par Collection** or **Par Clearance** System.

Prior to 1914, the collection of out-of-town checks frequently involved many delays and **exchange charges,** which were deducted by the paying bank for remitting funds in payment of checks presented for collection by out-of-town institutions. The Federal Reserve banks offer to collect out-of-town checks free of charge for banks that remit at par for checks drawn on them and deposited out-of-town. Thanks to the Federal Reserve's Par Collection System, all but a small minority of commercial banks now pay at par checks drawn against them. Non-par banks number about 2,000 and hold less than 2% of total commercial bank deposits.

Other services of the Federal Reserve banks include the collection of coupons and other items for member banks, telegraphic transfers of funds between members, the safekeeping of securities for banks, supplying currency to banks, receiving and sorting currency returned from circulation, and the performance of certain tasks for foreign central bank correspondents.

A substantial part of the personnel of the Federal Reserve banks is engaged in providing fiscal agency, custodianship, and depositary services for the Treasury and other government departments and agencies. Most of this work is connected with the issuance, exchange and redemption of government securities and the payment of government checks and coupons.

Federal Reserve Membership.—All national banks are required to join the Federal Reserve System, but only the larger state banks, as a rule, have become members. The reasons why so many medium-sized and small banks have not joined the System are various, most of them reflecting statutory restrictions and requirements. Legal reserve requirements are one important factor; another is that members are not permitted to levy exchange charges on checks forwarded to them by Federal Reserve banks for payment. The capital requirement for membership varies with the size of the place in which the bank is located, and is usually considerably higher than required by the state laws. Moreover, many of the services of the Federal Reserve banks are available to nonmembers, and other services are available also from city correspondent banks.

Member banks are classified into three groups depending upon their size and location: Central Reserve City banks (New York and Chicago), Reserve City banks (there are 60 Reserve cities), and all others are classed as "country" banks. About 50 Central Reserve City banks hold almost one-third of the assets of all member banks, and about 360 Reserve City banks hold more than another third. The remaining third is divided among some 6,500 "country" banks.

The effectiveness of the Federal Reserve System depends in large measure upon the proportion of banking assets held by members of the System. From the standpoint of numbers, only about one-half of all commercial banks are members, but they hold over 85% of all banking assets.

Member Bank Reserves.—Member banks are required by law to maintain deposits with the Federal Reserve banks of their respective districts as "reserves" against their deposit liabilities. Reserve require-

ments for member banks for many years were 13%, 10%, and 7% on demand deposits for Central Reserve City banks, Reserve City banks, and "country" banks, respectively, and 3% on time deposits for all classes of member banks. The Banking Act of 1935 empowers the Board of Governors to change requirements as it sees fit, varying them between the above-mentioned ratios and twice these ratios. This authority has been exercised on several occasions and requirements have been as high as the maximum permitted by law; namely, 26%, 20%, and 14% on demand deposits and 6% on time deposits.

The paramount role of legal reserves is to serve as a means of credit control. Changes in the amount of loans and investments of member banks cause corresponding changes in bank deposits, and therefore affect the amount of legal reserves required. In this way the volume of loans and investments is tied to the quantity of reserve balances of member banks at the Federal Reserve banks. When reserve requirements average 20% of all deposits, for example, member bank deposits can be expanded to five times the amount of the reserve balances of member banks. If deposits of member banks equal five times their reserves, member banks as a whole cannot increase their loans and investments unless they obtain additional reserve balances.

If an additional $1,000,000,000 of reserve balances should be provided, member banks could then expand loans and investments to the extent of $5,000,000,000. If, on the other hand, the volume of reserve balances should decline, member banks would be forced to liquidate investments or loans until deposits had decreased by five times the decrease in reserve balances. In other words, member banks are able to expand their loans and investments, or are forced to contract them, in accordance with changes in the amount of their reserve balances and in reserve requirements.

Member bank reserves in excess of the amount required as legal reserves are referred to as **excess reserves.** The quantity of excess reserves of member banks is published each week. It is a significant barometer of credit conditions because it indicates the amount of leeway that the banking system has to increase its loans and investments.

THE FEDERAL DEPOSIT INSURANCE CORPORATION. —The F.D.I.C. was organized in 1933 to restore public confidence in the banks and to protect bank depositors from future losses due to bank failures. To enable it to keep failures to a minimum, the Corporation was given broad supervisory authority over all insured banks and discretion with respect to admitting banks to insurance. A new supervisory organization was thus superimposed upon the already complex American banking system.

Membership in the F.D.I.C. is compulsory for all Federal Reserve member banks, but optional for nonmembers. As a result, the commercial banking system now consists of the following classes of banks:

1. National banks, all of which are members of the Federal Reserve System and all of which are insured.
2. State banks which are members of the Federal Reserve System, all of which are insured.
3. State banks which are not members of the Federal Reserve but which are insured.
4. State banks which are not members of the Federal Reserve and which are not insured.

Noninsured commercial banks now number only about 800, and they hold only about 2% of the nation's banking resources. For a number of years the great majority of the mutual savings banks remained aloof from the F.D.I.C. During World War II, however, a considerable number of the larger mutuals, holding well over half of total mutual savings bank deposits, were persuaded to join the F.D.I.C.

Members of the F.D.I.C. pay an assessment of 1/12th of 1% of all deposits payable semiannually. For this, each deposit account is insured up to $5,000. Funds are invested in government obligations. The very small losses from bank failures since the inception of the F.D.I.C. have enabled it to accumulate a very large reserve for future contingencies. Although this reserve is large in relation to losses in bank failures in recent years, it is not large in comparison with losses incurred over a long period of years before 1934.

The F.D.I.C. has adopted a strict policy with respect to the admission of newly chartered banks to membership in the insurance fund, and has made determined efforts to strengthen the banking system through its supervisory activities. In addition to restoring the confidence of the public in the banks, therefore, the F.D.I.C.'s influence upon American banking to date has been quite constructive, rather than detrimental as many of its early critics feared. Its success depends upon adherence to conservative policies by the F.D.I.C. and the insured banks.

REGULATORY LEGISLATION.—Congress and the 48 state legislatures have repeatedly amended banking laws. These laws impose restrictions on banking operations and delegate discretionary powers of regulation to supervisory authorities.

Between 1864 and 1913, Congress passed more than 60 laws amending the National Bank Act, chiefly on matters of detail. Since the establishment of the Federal Reserve System, federal banking legislation has consisted largely of detailed amendments to both the National Bank and the Federal Reserve Acts.

The **Banking Act of 1933** was a reform measure aimed at correcting specific abuses revealed by the depression. It strengthened the powers of supervisory officials, increased controls over the volume and the use of credit, and provided for temporary insurance of bank deposits.

The **Banking Act of 1935** dealt chiefly with the enlargement of the powers of the Board of Governors of the Federal Reserve System in the field of credit management. It also tightened existing restrictions of several banking operations and established the permanent system of deposit insurance.

Inconsistencies exist in federal banking laws because Congress first legislated only for national banks, later passed some regulations applicable to state member banks as well, then extended some provisions to nonmember insured banks, and finally applied a few restrictions to all banks.

The banking laws of the 48 states contain diverse provisions, and some have glaring omissions. More flagrant weaknesses have recently been largely corrected in the light of the bitter lessons of 1930–1933. The banking laws of certain states, especially in the East, meet high standards.

Banking statutes today are the product of an evolutionary process covering more than a century. They are voluminous and complicated.

Many provisions were enacted to meet emergencies, specific situations, and competitive conditions as they developed. Despite admitted defects, especially in certain states, present statutes constitute a marked advance over those of a few decades ago.

Supervision.—Supervision of banks consists chiefly of the administration, interpretation and enforcement of banking legislation. It is performed by a number of federal agencies and by the banking departments of the 48 states. Fig. 4 shows a diagram of supervisory relations. The objective of supervision is the maintenance of a sound banking system.

The functions of banking supervisors include: (1) passing on applications for charters for new banks; (2) liquidation of closed banks; (3) issuance of regulations, rulings and instructions to supplement or clarify legislation; (4) periodic detailed examinations of the condition, operations and policies of individual banks; (5) taking corrective action; (6) counsel and advice to bankers; (7) educational activities; (8) compilation of reports and statistical data; (9) approval of mergers and consolidations; (10) approval of the acquisition of branches; (11) approval of changes in banks' capital structures.

In addition, the Board of Governors of the Federal Reserve System passes on applications for membership in the System and the Federal Deposit Insurance Corporation passes on applications for deposit insurance.

Federal supervision is divided chiefly among three agencies: the Comptroller of the Currency, the Federal Reserve Board, and the F.D.I.C. The Comptroller is largely concerned with national banks. The Federal Reserve Board exercises some degree of supervision over all member banks, but examinations and related activities are conducted by the twelve Federal Reserve banks primarily with respect to state member banks. The F.D.I.C. has responsibilities with regard to all insured banks, but it supervises actively only nonmember insured banks.

Supervision of banks by state officials has at times been characterized by marked laxity. Federal supervision has tended to be more conscientious, but federal policies and especially their application by bank examiners have at times been too lenient and at other times too stringent. With the establishment of the Federal Reserve System in 1913 and the F.D.I.C. in 1933, all but a small number of state banks are now subject to federal examination and supervision.

PROPOSALS FOR BANKING UNIFICATION.—The 1938 annual report of the Federal Reserve Board described the American banking system as "a crazy quilt of conflicting powers and jurisdictions, of overlapping authorities and gaps in authority." Proposals have been put forward from time to time for greater unification of banking.

The mildest suggestion is that all banks should be required to join the Federal Deposit Insurance Corporation. It is argued that, since all banks benefit from the insurance, it is unfair for a minority to avoid paying their share of its cost. But some bankers oppose the idea, apparently fearing that F.D.I.C. officials might become more arbitrary if nonmember banks lost the option of withdrawing from membership.

Another proposal is that all commercial banks should be required to join the Federal Reserve System. This has been strongly opposed by thousands of nonmember bankers. Even if qualifications for member-

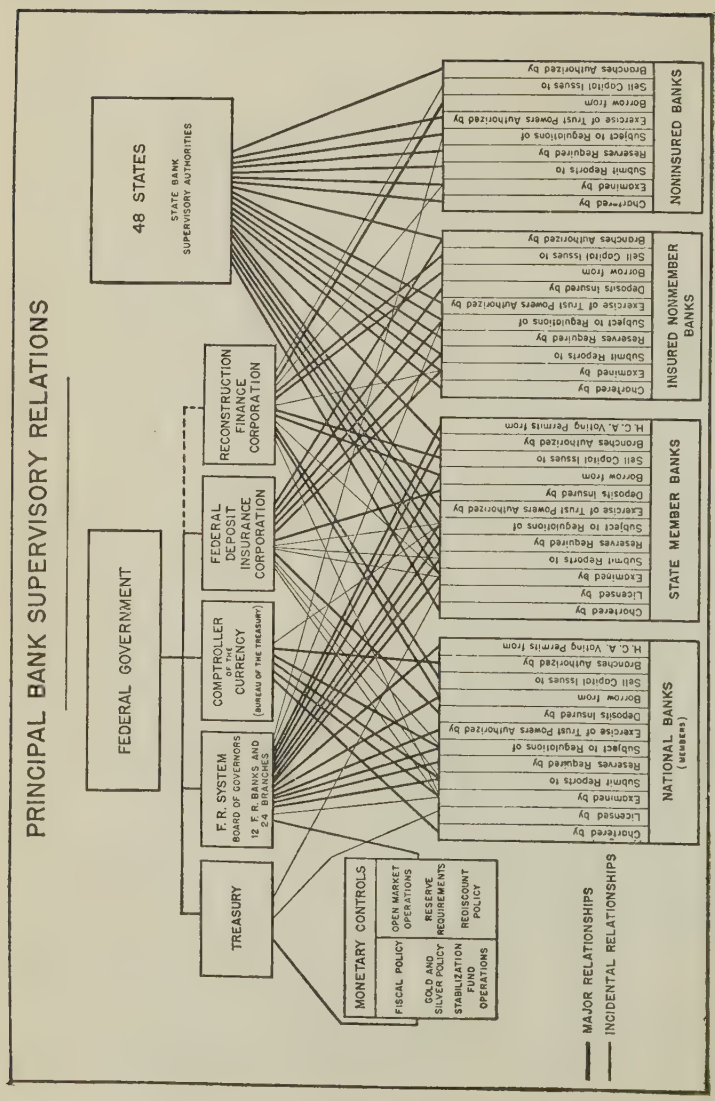


FIG. 4. Principal Bank Supervisory Relations

ship were relaxed somewhat, they feel compulsory membership would subject them to unwarranted hardships, and that it would be a long step toward the elimination of state banking.

Suggestions to substitute a single federal system in place of the present "dual system" of state and national banks are violently opposed by state banks and the banking departments of the states. Champions of the "dual system" contend that excessive chartering of banks has ceased and the F.D.I.C. has extended federal supervision to all but a few state banks, so that the arguments for unification advanced in the 30's no longer apply. The dual system, it is claimed, helps to protect the banks and the public from political management of the banking system.

INTERBANK RELATIONS.—Every commercial bank deals constantly with other banks in the course of its daily operations. It could not otherwise provide the broad banking services which are today required even in the smallest community.

The necessity for interbank transactions has resulted in the evolution of a vast network of correspondent relations between banks. The average commercial bank maintains deposit balances with several large city banks. In return for these accounts, the city banks perform a wide variety of services for their correspondents. Some of these services are the same as those rendered by the Federal Reserve banks, such as the collection of checks and coupons and the safekeeping of securities. In addition, however, city banks offer advice regarding investments, credit information, foreign department services, and assistance in solving bank management problems. Correspondent relations play an important role in the efficient functioning of the banking system.

Another example of interbank relations is the local clearing house. This is an association of banks in the same city or county, founded for the primary purpose of exchanging checks among the participating banks to facilitate their prompt collection. Beyond this mechanical function, clearing houses frequently act as an agency for united action on common problems such as service charges.

Bankers have also organized associations along county, state, regional, and national lines. The largest is the American Bankers Association, whose membership includes nearly all commercial banks. The A.B.A. maintains a sizable permanent staff of specialists in various fields of banking and functions as a trade association for the entire industry. Another important nation-wide organization is the Association of Reserve City Bankers, whose membership consists of officers of banks in Central Reserve and Reserve cities.

The activities of bankers' associations are manifold, including conventions, work with legislative committees, publications, special studies of monetary and banking problems, study conferences, and other educational activities. The American Institute of Banking, a section of the A.B.A., has about 600 chapters throughout the country which provide study courses for bank employees. The Graduate School of Banking at Rutgers University, sponsored by the A.B.A., offers a 2-week intensive curriculum primarily for bank officers. A number of state associations have organized similar study conferences, usually with the cooperation of state universities, members of the A.B.A. staff, and supervisory authorities.

BRANCH AND GROUP BANKING.—Branch banking is the operation of more than one banking office by a single banking corporation. American banks, like those of most other countries, operated some branches in the early stages of banking development. By 1860, there were 39 branch banks in 13 states operating 222 branches. After the Civil War, however, branch banking was discouraged and for a time almost disappeared. Around 1900, interest in branch banking began to revive in some states, and in 1909, California enacted a statute which permitted state-wide branch banking. Since then, branch banking has gained some ground, at times rapidly, at times slowly. A number of states have followed the example of California. Others have allowed the establishment of branches only on a city-wide basis. Others prohibit branches entirely, or the courts hold this is the case since the statutes are silent on the subject. National banks generally have the same branch banking powers as state-chartered banks in the same state.

Group banking is another type of multiple-office banking in which control of a number of unit banks is held by a holding company. Group banking has flourished in the West and Northwest. Its growth has reflected state prohibitions against branch banking and a desire to control banks operating in a number of states. Bank holding companies, to vote stock owned in member banks, must obtain a voting permit from the Board of Governors of the Federal Reserve Board, and conform to certain statutory requirements.

Chain banking refers to ownership of stock in a number of banks by a single individual or group of individuals, as contrasted with a holding company. It is relatively unimportant now.

National and state banking authorities exercise extensive supervision over all forms of multiple banking. They have complete power of decision, for example, concerning the establishment, location, and number of branches.

Multiple office banks of all kinds hold almost two-thirds of total bank deposits. If banks with only one or two branches were omitted, the proportion would be reduced to about one-half. If all multiple office systems operating in only one city were omitted, the proportion would be less than one-quarter.

Branch Banking Controversy.—Anathema to some, panacea to others, branch banking is a highly controversial issue in the field of banking.

Violent opposition comes, naturally enough, from smaller banks who fear for their very existence if large city banks were allowed to establish branches to compete with them. Numerically strong and united in their stand, unit bankers dominate the policies of most bankers' associations and have considerable influence with legislatures.

Opinion among city bankers is more evenly divided. However, aside from officials of branch systems, few city bankers speak openly in favor of branch banking for fear of alienating the affections and the deposits of their out-of-town correspondents. Active support for branch banking is therefore largely confined to economists, supervisory officials, and branch bankers.

The argument is usually restricted to state-wide or regional, not nation-wide, branch banking. Only a few extremists contend that national branch systems like those of Canada and England should be regarded as models for a country as large and diversified as the United States.

The debate may be summarized as follows:

The Case Against Branch Banking

1. **Service:** Branch banking produces cogs, not bankers. Restricted authority and subservience to a head office stultify initiative. A branch manager is a "hired man" of a distant corporation and does not have the same interest in the welfare of the community as the officer of an independent local bank. He tends to neglect the small depositor and the small borrower.

As branch banking expands, unit banks tend to disappear and the community is deprived of the benefits to be expected from normal banking competition.

2. **Safety:** The mere size of a branch system is no guaranty of financial strength: branch banks in the United States and elsewhere have failed in the past. The adequacy of a bank's capital is entirely relative. In fact, a fundamental weakness of a branch bank is its chronic tendency to expand just for the sake of expansion.

3. **Effects on the economy:** Independent bankers have encouraged the growth of new local enterprise. Many a thriving corporation received its initial impetus from the financial aid of the local banker. Unit banking prevents domination of credit by powerful groups.

The Case For Branch Banking

1. **Service:** Many small banks cannot afford to hire good management, whereas branch systems are able to employ and to train competent, experienced personnel. A branch system is better able to institute modern and efficient means of serving small depositors and small borrowers.

Independent bankers who do provide good service have no reason to fear the competition of a branch bank. Being local men, they have the competitive advantage. The community is entitled to the wholesome competition provided by branch banking but at present many unit banks have monopolies over credit and other banking services in their localities. Laws prohibiting branch banking simply perpetuate these unjustified monopolies at the expense of the public.

2. **Safety:** Branch systems have greater financial resources, better management, and greater diversification of loans and deposits. During 1930–1933, there was not a single failure in Canada or in England where branch banking prevails. California, leader in branch banking, had a far better record than most other states.

New branches, of course, would always require approval of the supervisory authorities.

3. **Effects on economy:** Progress has been achieved in other industries by replacing small and inefficient units with larger and more efficient ones. This is the principle of branch banking.

Possibilities in Branch Banking.—Branch banking is neither panacea nor anathema. Properly regulated, it can be beneficial. Its development, however, should be gradual to assure competent management and to

avoid disturbing established sound unit banks. Efficient independent banks can compete successfully against branches, whereas, from the standpoint of public interest, inefficient banks do not deserve to be protected indefinitely against the better-service competition that branch banks can offer. In the long run, the public which is served, rather than the bankers, should be permitted to decide the kind of banking it wants.

Banking Trends

THE DEPRESSION FLOOD OF BANK FAILURES.—The collapse of the banking system during 1929–1933 marked the end of one era in banking history and the beginning of another. Many major present-day trends in banking date from 1933 and reflect the depression experience.

During that period almost 10,000 banks failed. Far too many banks had been chartered, due partly to mistaken theories as to the virtues of unlimited competition in banking and partly to the eagerness of state and national supervisors to add to the size and prestige of their respective systems. This had weakened the banking structure, lowered the quality of bank management, and led to unsound methods of competition.

The mortality rate was especially high at first among state banks which had been established with very little capital. But, as the depression deepened, banks of all sorts and sizes which a few years before had seemed impregnable buckled under the impact of the unprecedented declines in values and in business activity. Failures generated a vicious spiral of deflation. As more and more banks closed, public hysteria increased. Panic continued to mount until, in March, 1933, President Franklin D. Roosevelt, in his first official act, imposed the "Bank Holiday" temporarily closing all banks. This act was made inevitable by the inability of the Federal Reserve banks to provide more currency at the time to meet the hoarding demand. Public confidence was then restored and a new era in banking was begun with the enactment of the Emergency Banking Act of March 9, 1933, providing government capital to reopen banks and assuring adequate currency in the form of Federal Reserve bank notes without gold backing.

Banking Under the "New Deal."—Banking emerged from the holocaust vastly strengthened. In general, the weakest banks had failed and the fittest had survived. Sales of preferred stock and capital notes to the R.F.C. and deposit insurance added to the strength of the surviving banks. The Banking Acts of 1933 and 1935 had the same effect through such provisions as prohibiting the payment of interest on demand deposits and investment in securities that are "predominantly speculative."

During the 1920's and before, a number of large banks had incorporated affiliates under the general corporation laws of the states to engage in underwriting, selling, and trading securities. Losses incurred by these affiliates had caused huge losses to many of these banks, leading to some of the worst failures. The Banking Act of 1933 forbade banks to have security affiliates, and required the dissolution of those then in existence.

TRENDS IN BANK LOANS.—Up to the end of World War II, the volume of bank loans had been declining in relative importance for several decades. One cause was the progressive concentration of industry. Another was the preference of large corporations for other financing methods, chiefly the sale of stocks and bonds and the reinvestment of earnings. Since 1946, however, business concerns have increased their utilization of bank credit very substantially, largely because of their greatly increased needs for funds for additional working capital and for expansion purposes.

The composition of bank loans has also been changing. The traditional "self-liquidating" credits to finance short-term business transactions have dwindled in importance. Security collateral loans have been limited by margin restrictions. Term loans to business for a period of several years, unheard of a few years ago, now constitute an important part of the loan portfolios of many larger banks. Instalment and other types of consumer loans also have expanded.

THE GROWTH OF BANK INVESTMENTS.—Since 1933, there has been a spectacular increase in the amount of securities held by commercial banks, as the following figures indicate:

Loans and Investments of Member Banks
(End of year figures, in billions of dollars)

	1930	1933	1940	1951
Loans	$32	$16	$19	$ 49
U. S. government securities	5	8	18	52
Other securities	10	7	7	11
Total loans and securities	$47	$31	$44	$112
Securities as per cent of total	31%	47%	57%	56%

The large deficits of the federal government since 1931, a substantial portion of which had to be financed by the sale of securities to banks, explain this increase in bank investments. The composition of bank investment portfolios has undergone marked changes. During the 1920's many banks became buyers of securities for the first time and invested with little discrimination, frequently in speculative issues. The heavy losses sustained during the depression in foreign, railroad, public utility, and industrial bonds was one factor causing a decided shift into government obligations. Much more important was the increasing supply of governments. In certain parts of the country, especially in the South banks have continued to hold substantial amounts of state and municipal securities.

FACTORS AFFECTING DEPOSITS.—Bank deposits declined by about 50% during the 1930–1933 depressior due to the liquidation of bank loans and investments, failures, hoarding, and an outflow of gold. Since 1933, however, the trend of bank deposits has been sharply upward, and was greatly accelerated during World War II.

During 1933–1940, deposits expanded because of bank purchases of securities and the inflow of gold. Since then, banks have greatly increased both their loans and their holdings of government securities. The reasons for the expansion of commercial bank deposits during these two periods were as follows:

	June, 1933 June, 1940	June, 1940 Dec., 1951
	(Billions of dollars)	
Factors increasing commercial bank deposits:		
Increase in monetary gold stock	$18	$ 3
Increase in commercial bank investments	11	51
Increase in Federal Reserve bank investments	..	21
Increase in commercial bank loans	2	41
Other factors (net)	..	2
	$31	$118
Factors decreasing commercial bank deposits:		
Increase in currency in circulation	3	22
Other factors (net)	2	..
	$ 5	$ 22
Net increase in commercial bank deposits	$26	$ 96

BANK EARNINGS.—Net profit of commercial banks increased during World War II because of their increased holdings of government securities. Since the war, income from loans has risen substantially but net profits have been held down by rising costs, especially federal income taxes.

Earnings of banks from current operations are moderate but characteristically steady, compared with many other types of business. The average rate of return on bank earning assets, especially investments, declined with interest rates and with rising salaries and other costs. Service charges on checking accounts were adopted by most banks, though with little uniformity as to fees, to sustain earnings. Reduced revenues also led to an intensive study of operating costs and to the adoption of more efficient equipment and procedures.

Appreciable differences have developed in earnings of various groups of banks. Especially noticeable has been the poorer showing of banks having high ratios of thrift accounts.

Despite conservative dividend policies, deposits and earning assets of banks have increased since 1933 at a far more rapid pace than capital funds. In the event of a depression, however, losses are expected to be less severe than in the past, partly because of the changed composition of banking assets. In fact, for many banks, profits on securities may largely offset losses on loans. Also, most banks have now built up some reserves against losses on bad debts.

BANKING COMPETITION.—Intensity of banking competition varies greatly in different localities. In many a small community, there is but one bank which has a virtual monopoly over local credit. Its lending rates are sometimes relatively high. In some cities having a number of banks, competition among them is keen, while in other places there is considerable uniformity in such matters as lending rates, service charges, and interest rates paid on savings deposits. Other types of lending agencies, both private and public, provide stiff competition with commercial banks in certain areas.

Excessive and uneconomic competition among banks which characterized the 1920's has largely disappeared, partly because of the elimination of thousands of marginal and poorly managed banks which had

aggravated that type of competition. Today payment of interest on demand deposits is prohibited and maximum rates have been established for interest paid on time deposits. Generally speaking, competition in providing better service has replaced other tactics.

But competition from other types of lending institutions has been increasing since 1933. Federal savings and loan associations have been aggressive in competing for real estate mortgages, lending on terms far more lenient than permitted to commercial banks. They have also bid for savings at higher rates than banks can pay. Governmental agencies have been especially active in the field of agricultural credit. In one field, however, the banks have taken the offensive by entering into competition with established lending agencies in the consumer credit field.

Although most government agencies provide credits which are not suitable for commercial banks, their competition poses a serious and complicated problem. Little consideration has been given to logical lines of development. Government agencies have tended to perpetuate expedients and to expand their spheres of activity continually. There is need for a carefully conceived policy of government lending which could be carried out in a rational and predictable manner and which would clarify the role of commercial bankers.

Monetary and Credit Management

DEFINITIONS AND OBJECTIVES IN MANAGEMENT.—Monetary and credit management by a government or central bank is designed to influence economic conditions by means of changes in the nation's monetary system, the volume and uses of bank credit, or the level of interest rates. The two terms, **monetary policy** and **credit policy,** are sometimes used interchangeably, but a distinction is frequently drawn between the former as referring to the monetary standard and system and the latter as referring to credit and banking conditions and interest rates. In general, monetary policy is formulated by legislative or executive action, whereas credit policy is, in the first instance, the concern of the central bank. In recent years, however, the Treasury has played an increasingly important part in credit management.

The **broad objective** of monetary and credit management in peacetime is to promote economic stability at a high level of employment and production. To this broad end specific measures are adopted to raise, lower, or stabilize the price level, to curb excessive speculation, to maintain sound banking conditions, to expand foreign trade, to stimulate enterprise, to encourage or restrain consumer buying, to influence foreign exchange rates, to maintain an equitable relationship among various income groups, and to maintain an orderly market for government securities.

In wartime, monetary credit management seeks to assure the success of Treasury borrowing, assist the mobilization of the economy for war, and minimize the harmful after-effects.

The objectives and criteria of credit management must depend upon the economic conditions prevailing. There is no single formula applicable at all times. "Stability of prices," for example, is usually desirable, but at times this is a misleading goal of credit policy. As the experience

of the 1920's proved, steady prices do not always reflect sound economic conditions. There are times when higher prices would promote prosperity, and others when a decline in the price level is desirable or inevitable. In any event, the ability of money and credit managers to influence the price level is limited, and other objectives may be more effective in promoting economic stability.

The role of credit policy is at times merely negative. In eras of prosperity, the objective may be merely to prevent monetary and credit conditions from having a disruptive effect upon the economy.

MONETARY POLICY.—The elements of monetary policy, using the term in its limited sense, include the valuation of the nation's money unit in terms of gold or of a foreign currency, coinage and paper money, convertibility and other features of the currency, foreign exchange controls, policy with respect to the purchase and sale of gold and silver, and regulation of exports and imports of these metals and other forms of capital.

Monetary depreciation usually results from a drain on a nation's gold stock, arising either from an adverse balance of trade or a flight of capital induced by a loss of confidence in the stability of a currency. During the early 1930's, frightened capital fled first from one country and then another, causing monetary difficulties in much the same way that runs on banks contributed to bank failures in the United States. Depreciation has been deliberate at times, as in the case of the United States in 1933, to promote price and economic stability. Under the Bretton Woods Agreements, however, members of the International Monetary Fund may not depreciate their currencies in excess of 10% without the consent of the Fund.

Upward revaluation of a currency has been far less common. In July, 1946, both Canada and Sweden revalued their currencies upward in terms of the United States dollar to insulate their internal price levels from the effects of sharply rising prices abroad, especially in the United States.

For many years prior to the first World War, England occupied a position of leadership in monetary policy. After the war, the American dollar emerged as a strong competitor to the pound sterling for international supremacy. During the 1920's and 1930's, however, American policies with respect to war debts, foreign trade, foreign lending, devaluation of the dollar, and silver operations caused havoc among foreign currencies. Other nations attempted increasingly to isolate their internal economies by the adoption of managed monetary systems during the 30's.

World War II drastically dislocated trade relations and caused severe currency inflation in most countries. American wartime "lend-lease," relief shipments and leadership in establishing the International Monetary Fund and the International Bank for Reconstruction and Development marked the adoption of a policy of closer monetary cooperation with other countries.

THE MONEY SUPPLY AND THE PRICE LEVEL.—The relation between the supply of money, including bank deposits, and the price level has been studied for generations by economists and monetary authorities in government. The subject has been of particular concern in recent decades, when wide fluctuations in the price level promoted

interest in stabilizing the value of money. While changes in the volume of money outstanding increase or decrease purchasing power, fluctuations in the commodity price level quite frequently do not correspond in degree, or even in direction, with changes in the quantity of money in circulation. Clearly, other factors than the mere quantity of money must be taken into account. For example, cash or deposits which lie dormant have no effect upon prices, so that changes in the velocity of turnover of money may be more important than variations in quantity. Also, the level of business activity is a paramount influence upon the price level, regardless of the quantity of money outstanding.

The relationship between the money supply, velocity of turnover, business activity, and the price level is expressed in the so-called "equation of exchange" which is as follows:

$$M\ V + M'\ V' = P\ T,$$

where M represents the volume of money, M' the volume of bank demand deposits, V and V' the velocity turnover of money and bank demand deposits respectively, P the average unit price at which all goods and services change hands, and T the total turnover of goods and services. In other words, all transactions in the course of, say, a year, at the prices at which they are consummated, equal the volume of money and bank demand deposits, times their rate of turnover for the year.

This equation is simply a truism, and proves nothing with respect to the causes of changes in prices. It has real value to the student of money, however, as a point of departure for studying the factors affecting the value of money. But superficial interpretations of modifications of the formula are more confusing than helpful. Thus, V is not an entity in itself, since the rate of turnover of money is merely an arithmetic ratio reflecting the many influences that cause people to spend their money more or less freely. "Quantity theorists," on the other hand, are inclined to ignore velocity and changes in the volume of transactions, arguing that P, the price level, reflects changes in M, the supply of money, or of gold as standard money. Failure of the experiment of lowering the price of gold to raise the price level in 1933 discredited the literal quantity theorists.

CREDIT CONTROL AND RESERVE CREDIT.—Changes in member bank reserve balances have a dominant influence upon the bank's investing and lending policies. Factors which change the volume of reserves are thus of prime importance in credit management. Reserve balances are expanded or contracted when Federal Reserve banks increase or reduce their advances or investments. When a Federal Reserve bank makes an advance to a member bank, it credits the latter's deposit account and member bank reserve balances are thereby increased. When the member bank repays the advance, its check reduces its reserve account at the Federal Reserve bank.

When a Federal Reserve bank buys government securities in the open market, the dealer who sells the securities receives a check from the Federal which he deposits in his commercial bank. The latter forwards the check to the Federal and its reserve account at the Federal is credited. When the Federal sells securities in the open market, the dealer's check in payment serves to reduce the reserve balance of the

member bank where the dealer has his checking account. Federal Reserve banks can thus change the volume of reserve balances at will simply by buying or selling government securities.

Member bank reserve balances are also affected by changes in monetary gold stocks and in currency circulation. When currency in circulation increases, member banks withdraw Federal Reserve notes from Federal Reserve banks to replenish their vault cash, depleted by depositor withdrawals. Withdrawals of currency from the Federal reduce reserve balances of member banks. Conversely, when currency returns from circulation, member banks deposit it with Federal Reserve banks and their reserve balances are credited accordingly.

TECHNIQUES OF CREDIT CONTROL.—The chief techniques for credit control are: (1) quantitative controls changing the volume of member bank reserves, (2) interest rate and bond market controls, and (3) qualitative or selective controls over the uses to which bank credit is put.

Quantitative Control.—Open-market operations have been by far the most important instrument of quantitative control in the United States. Except for a limited period when bankers' acceptances enjoyed a broad market and afforded a medium for open market operations by the Federal Reserve banks, United States government obligations, especially short-term issues, have been used for this purpose.

Under most circumstances, open-market purchases and sales of government securities by the Reserve banks provide a simple and flexible means of regulating the amount of member bank reserve balances. During the late 1930's open-market operations were rendered ineffective for several years because excess reserves created by gold imports exceeded the total security holdings of the Federal Reserve banks.

Another very powerful, though less flexible, instrument of quantitative credit control is the power of the Federal Reserve Board to raise or lower legal reserve requirements of member banks. Changes in reserve requirements automatically increase or reduce the quantity of excess reserves, and thereby encourage credit expansion or contraction. It has been proposed that this instrument of credit control be strengthened by authorizing the Board of Governors to raise legal reserve requirements still higher, and an extreme suggestion has been made to install a 100% reserve requirement.

For member banks that do not possess excess reserves, the rate of discount of the Federal Reserve bank becomes a major instrument of quantitative control, since it determines the cost of obtaining Federal Reserve credit when it is needed.

Interest Rate and Government Security Market Controls.—While interest rates reflect quantitative credit controls, some central banks have at times pursued a policy of maintaining low interest rates, even when confronted with inflationary conditions, for reasons other than a desire to expand the volume of bank credit. The most potent reason is that governments have become burdened with large public debts and naturally wish to finance their borrowing at low interest cost. Another is that easy money is popular with large groups of the population who are borrowers. Followers of the late John Maynard Keynes argue that low

interest rates are needed to stimulate capital investment to promote full employment.

Low interest rates obviously favor borrowers at the expense of savers and investors. Life insurance policyholders, savings bank depositors, bondholders, and endowed educational and charitable institutions receive low returns on their savings and investments.

Interest rate controls are implemented by direct intervention by the Federal Reserve banks in the market for Treasury obligations, as well as by the public **debt management** policies pursued by the Treasury, i.e., the choice and timing of new issues and redemptions of government securities.

Open-market purchases and sales of government securities by the central bank are the most effective means for influencing government bond yields. Open-market purchases not only raise quotations and thereby lower yields, but they also supply commercial banks with added reserves which enable them to purchase government securities in multiple amounts. During World War II, the Federal Reserve banks went further and offered to buy Treasury bills and certificates of indebtedness at ⅜ and ⅞ of 1% yields respectively, thus effectively pegging these interest rates.

Another specific objective of credit policy in recent years, accomplished chiefly through open-market operations, has been to maintain an "orderly market" for government securities. While one reason for stabilizing bond prices has been to facilitate Treasury financing, the monetary authorities have also wished to avoid broader disruptive effects of wide fluctuations in bond prices upon the banking system and elsewhere.

Qualitative Credit Controls.—Qualitative credit controls seek to influence the quality (composition) of credit, i.e., the uses to which credit is put. The synonymous term "selective controls" is more descriptive, because it implies that certain types of credit are selected for special controls.

Loans on securities, consumer credit, and mortgages have been the chief areas in which qualitative controls have been employed in the United States. Such credit regulation is referred to as direct control because it is applied directly to these loans, but not to others.

The purpose of regulating loans on securities is to limit credit expansion to carry and hold securities and to prevent speculation in the stock market from bringing about expansion and later contraction of credit. Consumer credit regulation has been designed to encourage or restrain consumer buying of durable goods by setting minimum down-payments the borrower must make and the maximum number of months over which he is to pay the balance in instalments. Variations in these terms have an appreciable effect upon the volume of consumer buying of items such as automobiles, furniture, refrigerators, and radios. Instalment buying tends to expand during good times, thereby accentuating business booms, and to contract during depressions, thereby aggravating the decline in business activity. But many opposed controls over consumer credit, claiming that they discriminate against lower-income groups who are often unable to buy such goods when terms of payment are rigorous.

Regulations which restrict bank loans and investments for reasons of safety are sometimes classed as qualitative controls, but they differ basically in character from those mentioned above. Member banks are prohibited from buying speculative securities and both federal and state laws specify the extent to which banks can loan against real estate. In 1950, federal regulations on mortgage loans were adopted to restrict the expansion of this type of credit.

FEDERAL RESERVE POLICY.—Prior to 1928, Federal Reserve policy sought to promote economic stability chiefly by changes in rediscount rates and open market operations. In 1928 and 1929, both quantitative and qualitative controls were used to curb the runaway stock market speculation of that time. The Board issued several warnings and attempted other "direct action" to curb the flow of credit into security loans, but its then powers were not adequate to check the expansion of speculative security loans. Adequate powers for this purpose were conferred on the Board in 1933 and 1934.

During the 1930's, the Board pursued an easy money policy to promote business recovery. However, there is little evidence that low interest rates during this period had a significant effect upon business. The Federal Reserve Board received power to change reserve requirements of member banks, within limitations, in 1935, when the inflow of gold from abroad created excess reserves. The Board did not wish to eliminate excess reserves entirely or to raise interest rates, but it did not like to see excess reserves at levels which made restrictive credit policies impossible should the occasion arise where they would be needed. The Board raised reserve requirements in 1936 and 1937 to mop up excess reserves, and its action was followed by a decline in government bond prices and a recession. Opinions differed as to whether higher reserve requirements helped to depress business, but in any event excess reserves were soon higher than ever because of the continued influx of gold.

During World War II, credit policy was concerned primarily with aiding the Treasury's financing program. To keep down the cost of the Treasury's borrowing, the Federal Reserve offered to buy Treasury bills from banks and dealers at a ⅜% yield and certificates of indebtedness at ⅞%. These securities thus were made the equivalent of cash, and whenever banks needed additional reserves they sold short-term issues to the Federal Reserve.

Additional reserves were needed chiefly because of the huge expansion in currency circulation and the rapid, persistent increase in the bank's government security portfolios. Excess reserves were held around a billion dollars throughout the war period by the Federal's open market policy, but by the end of the war, United States government security holdings of the Federal Reserve banks had increased by some $22,000,000,000.

While the Federal Reserve System provided member banks with additional reserves to assure that they would subscribe to new Treasury offerings, the Treasury sought to borrow as far as feasible from nonbank lenders, to limit the inflation of bank deposits. Commercial banks could not subscribe for new Treasury issues in the successive War Loan Drives, after the first two, and they could not purchase Treasury bond issues sold at the time until specified dates near their maturity. How-

ever, to obtain funds to subscribe to new Treasury issues, other investors, especially insurance companies and savings banks, sold billions of dollars of bank-eligible bonds to the commercial banks, which could readily absorb them thanks to the open market policy of the Federal Reserve, and thus expanded bank credit.

Postwar Policy.—When the war ended, the expanded money supply, wage increases, and widespread shortages of goods pushed commodity prices higher. The Federal Reserve System, however, maintained the rigid wartime pattern of low Treasury borrowing rates until the middle of 1947. During 1947–1948 short-term rates were permitted to rise somewhat, but the Federal Open Market Committee maintained fixed support prices at par or higher for medium- and long-term government bonds. The Reserve System purchased huge quantities of government securities at these pegged prices from insurance companies and other investors, thereby enabling them to meet the strong demand for credit from private borrowers.

In 1949, when prices and business activity began to recede, the Reserve System adopted a policy of making credit easier. After the outbreak of the Korean war, however, the Reserve System again adopted restrictive credit policies. In March, 1951 the Federal Reserve Board and the Treasury announced an "accord" whereby government bond prices were permitted to decline below par for the first time since prewar days. This was a long step toward the restoration of traditional monetary policy.

CREDIT POLICY AND FISCAL POLICY.—Fiscal policy is the government's policy with respect to raising and spending money. It embraces the subjects of federal revenues, expenditures, borrowing, and management of outstanding debt. With the great expansion of the financial operations of the government, fiscal policy profoundly influences economic conditions. It is but logical, therefore, that fiscal and credit policies are largely coordinated, so that the two work toward common or at least complementary objectives rather than at cross-purposes. For credit management affects the cost of Treasury borrowing, and Treasury policies, especially with respect to the amount and types of the securities it issues, influence the quantity of bank credit, interest rates, and the composition of bank investment portfolios.

RADICAL PROPOSALS.—The field of money and banking has long been a stamping ground for demagogues and dreamers. Schemes for ushering in the millennium by means of financial alchemy have been brought forward in every age. The usual solution is to conjure up prosperity for all by issuing more money. Sometimes the proposed hand-out is disguised with pseudo-technical verbiage ("Social Credit" is an example); sometimes it is designed to appeal to a special group, as was the Townsend Plan for old age pensions; sometimes the suggestion is simply that more currency be issued, as was urged by greenback enthusiasts and the silver bloc. Since the prospect of having more money is universally pleasing, the evangelists of Utopia seldom lack a gullible following.

Unsound monetary theories have too frequently given rise to legislation. Devaluation of the dollar in 1933 resulted from agitation by a few who held a mystical faith that a change in the gold content of the

dollar must somehow cause a precisely equivalent change in commodity prices. Of the legislators who voted for Treasury purchases of silver, a number had been brought to believe in the magical qualities attributed by the "silver Senators" to the white metal.

More recently, the "100% reserve system" has been prominent among unorthodox proposals for banking reform. This plan would separate checking from savings accounts, and institutions holding the former would have to maintain a 100% reserve in currency against their demand deposits. Commercial banks could then no longer lend or invest, and the function of credit expansion and contraction would be turned over to a National Monetary Authority that would expand or contract the currency supply.

LIMITATIONS AND POTENTIALITIES OF CREDIT MANAGEMENT.—Credit management cannot assure prosperity. Other factors, mostly unaffected by credit policy, usually have far greater influence upon economic conditions. Credit management can operate only within a restricted sphere, and usually it is only partially effective even within that area.

Credit management is subject to the limitations of all forms of economic planning: the difficulty of diagnosing existing conditions correctly, of predicting future developments, of formulating a suitable prescription, and of forecasting its effects. It has one advantage over many governmental policies in that its determination is usually less directly influenced by pressure groups and the vagaries of legislative action. Nevertheless, it is by no means free from considerations of political expediency, or from the tendency of all centralized authority to seek to expand its powers.

One handicap is that the effects of a credit policy are extremely difficult to appraise. Other influences may intervene. This is particularly true of quantitative and interest rate controls. The effects of selective controls can be more readily measured, but the objectives are far narrower.

Credit management does involve less regimentation than many types of economic planning. Its administration does not require an army of government employees. It does not directly dictate what individuals must do, but rather helps to mold the general framework and the financial conditions within which individual choice and judgment may function with comparative freedom. To the extent that it is able to promote economic stability, it should reduce pressure for regimentation of economic activity.

SECTION 13

BANKING PROCEDURE

CONTENTS

PAGE

How a Bank Is Organized

Securing a bank charter 571
State or national bank? 572
Capital requirements 572
Regulation of banking 572
Requirements for directors 572
Bank examinations 573
Removal of director or officer 573

Bank Deposits

Kinds of bank deposits 573
Services offered depositors 574
Competition for deposits 575
Restrictions on payment of interest on deposits 575
Federal deposit insurance 575
The Federal Deposit Insurance Corporation 576
Insured banks 576
Insured accounts 576
Prevention of unsound practices by insured banks 577
Payment of insured deposits 577
Payment of dividends and interest by insured banks 578
Deposits are liabilities 578
Right of set-off 578

Checking Accounts

Select a bank 579
How to open a checking account 579
Advantages of a personal checking account 579
Opening a corporate deposit account.. 580
Resolution authorizing opening of corporate account (*f.* 1) 581
Partnership accounts 580
Joint accounts 580
Making a deposit 582
When deposited items are available for withdrawal 582
Federal Reserve Bank of New York credit for cash items at head office (*f.* 2) 584
Banks' payroll service 583
Certification of checks 583
Stop-payment orders 585

PAGE

Reconciliation of bank account 585
Deposit account analysis 587
Service charges 587
Exchange and collection charges 588
Par clearance system 588
Par collection process 588
Nonpar banks 589
Collection service 589

Investments

Role of investments 590
Securities eligible for bank purchase. 590
Preference for government obligations 591
Valuation of investments 592
Profits from sale of securities 593
The investment department 593
Portfolio policy 593
Distribution of investment maturities 594
Real estate mortgages as bank investments 595

Loans

Importance of loans 595
Methods of borrowing 595
Variety of loans made by banks and limitations on amounts loanable (*f.* 3) 596 597
Uses of bank loans 598
One or more banks? 598
Types of bank loans 598
Secured loans 599
Security loans 600
Single-name vs. two-name paper 601
Accommodation paper 601
Banker's acceptances 601
Credit analysis 602
The line of credit 603
Term loans 604

Consumer Credit Agencies

Financing the consumer 604
Sales finance companies 604
Industrial banking 605
Personal loan departments of banks.. 605
Personal finance companies 605
Credit unions 606

SECTION 13

BANKING PROCEDURE

How a Bank Is Organized

SECURING A BANK CHARTER.—Banking is a licensed and regulated business. Many safeguards have been placed around it for the protection of the public. Since prices of most banking services are set by competition, however, banking differs from public utilities.

The United States has a **free banking system,** which means that it is not necessary to secure a special charter from a legislature to start a bank. It is necessary to secure a charter from the national or state regulatory authorities, however, and this has become quite difficult because excessive chartering of new banks before 1931 is blamed for the many failures of the 1931–1933 period. In many states, the Superintendent of Banks submits applications for a charter to a banking commission composed of outstanding citizens who are familiar with the banking and credit needs of the various communities of the state. Applications which do not receive Commission approval are automatically denied.

Securing a bank charter is a long drawn out process. Generally, **authority to organize** must be secured from the supervisory authorities before proceeding with the actual steps of organization. An application for permission to organize must clearly indicate that there is a local need for banking service which is not being met by existing institutions. The men proposing to form the new institution must have had banking and business experience, and be residents of the community where the bank is to be located. The professional promoter is specifically excluded in Instructions of the Comptroller of the Currency Relative to the Organization and Powers of National Banks (Government Printing Office, Washington, D. C.):

> The Comptroller of the Currency will refuse to approve any application for the organization of a national bank that contemplates or provides for any promotion fee, or that proposes to set apart or apply any part of the moneys collected from subscribers for the payment of promoters' fees, for the sale of stock, or for service in starting and opening any such bank, whether provided for by contract with proposed bank or by contract with the subscribers to the stock of the proposed bank.

The supervisory authorities (state or national, as the case may be) make a careful investigation to determine whether local conditions warrant approval of the application for a charter. While this examination varies from state to state, it is quite searching in the financially important states and in the case of applications for national bank charters. The investigation, at the expense of the applicants, covers the

general character and experience of the organizers and proposed officers, the adequacy of existing banking facilities, the need of further banking capital, methods and practices of existing institutions, the interest rates which they charge, the character of the service which as quasi-public institutions they render their community, the economic outlook for the community, and finally, the prospects for success of the new bank if efficiently managed. The examiner is careful to interview personally all those who protest against the organization of a new bank. The advice of the Federal Reserve Bank, the Federal Deposit Insurance Corporation, and other interested agencies is sought by the examiner. Appropriate recommendation is then made to the supervisory authorities, by whom the application is either disapproved or approved.

State or National Bank?—In the eastern states, where banking laws have generally been strict and supervision close, state-chartered institutions compare favorably in every way with the national banks. In some southern and western states, minimum capital requirements for state banks have been low and supervision less exacting.

CAPITAL REQUIREMENTS.—Since the rate of earnings on bank assets has declined, considerably more capital is required for successful bank operation than in the past. **Minimum capital requirements** are set by law, but they are of little more than academic interest as considerably larger capital funds are required for practical reasons. Some states have a minimum requirement as low as $10,000. Minimum capital requirements for national banks, which secure their charters from the federal government, are: $50,000 in a place of 6,000 population or less; $100,000 for any place with a population of more than 6,000 and not exceeding 50,000; $200,000 for larger towns or cities, except that in the outlying districts of such cities a minimum capital of $100,000 may be permitted if the laws of the state permit the organization of state banks with a capital of $100,000 or less. Higher minimum capital requirements apply to institutions with branches.

REGULATION OF BANKING.—Practically every banking activity is regulated by some governmental agency. Primarily banking is regulated for the protection of depositors. To a growing extent, the effect of bank credit operations upon business and the general welfare guides regulatory measures and actions.

Requirements for Directors.—Special requirements are established for bank directors. They must be citizens of the United States, residents of the local community (or within 50 miles), owners of a substantial amount of stock in the bank (in no event less than $1,000 if the bank is a member of the Federal Reserve System), and of high character and reputation. They must take an oath to well and truly administer the affairs of the bank. They are personally liable when the bank (through its agents) commits any act not in accordance with statutes and legal precedents, and may be held criminally liable for specified acts by their bank, such as loans to bank examiners, fraud, false entries in the books, embezzlement, willful certification of a check in excess of depositor's balance, soliciting or receiving a bonus or commission for making a loan, and contributions to political parties. Directors are liable to creditors, particularly depositors, and to stockholders for failure to

examine the bank as required by law, for exceeding the statutory limit on loans, for payments of dividends out of capital, and for mismanagement.

In a long line of decisions, the courts have held that bank directors must be diligent, reasonable, prudent, and possessed of business ability. The position of bank director thus involves substantially more risk than a directorship in a business corporation.

Bank Examinations.—Historically, the Comptroller of the Currency and state bank supervisory authorities had the sole responsibility for examining the banks under their respective jurisdictions. With the advent of the Federal Reserve System, examination functions were assumed by this agency also. The Board of Governors of the Federal Reserve System maintains a corps of auditors to examine the twelve Federal Reserve banks, while each Federal Reserve bank has a staff of examiners to audit state-chartered member banks in its district. This Federal Reserve examination may be independent or merely an analysis of the report of examination of the national bank examiners, depending on the circumstances. One object of the Federal Reserve examiners is to determine whether a member bank is putting Federal Reserve credit to improper use.

A particularly searching examination is made by the **Federal Deposit Insurance Corporation** of its members that are not also members of the Federal Reserve System, as well as banks applying for insurance and closed banks. These examiners may, with written permisison of the Comptroller of the Currency, examine any national bank and, with permission of the Board of Governors of the Federal Reserve System, any state member bank. Since the F.D.I.C. insures deposits, it is directly involved should an insured bank fail, and so seeks to prevent such an outcome by remedial advance action where weakness is suspected.

Large banks have an official known as the bank auditor who heads a department of examiners that functions within the bank.

Removal of Director or Officer.—Supervisory authorities have the power to remove a member bank director or officer for cause. When, in the opinion of the Comptroller of the Currency, any director or officer of a national bank, or when, in the opinion of the Federal Reserve agent, any director or officer of a state member bank in his district shall have continued to violate any law relating to such bank or trust company or shall have continued unsafe or unsound practices in conducting the business of his bank, after warning to discontinue such violations of law or such unsafe or unsound practices, as the case may be, the Comptroller or Federal Reserve agent may proceed to have him removed. The offending officer or director is given a hearing by the Federal Reserve Board, which has final authority to require his removal.

Bank Deposits

KINDS OF BANK DEPOSITS.—Deposits may be **demand** deposits subject to withdrawal by drafts drawn at sight (checks); or **time** deposits withdrawable at a specified future date, after the lapse of a specific period of time, or upon thirty or more days' advance **notice** of withdrawal. **Savings** deposits are time deposits other than those made

by business corporations, and are represented by pass book, subject to 30 days' advance notice of withdrawal but, as a practical matter, available on demand under normal conditions.

Deposits are also classified, according to ownership, as United States government, interbank, and individual (all other than the first two categories). United States government deposits are called "tax and loan accounts" because they are used for crediting the government with payments for taxes and purchases of Treasury obligations.

Deposits in a bank take the form of cash, checks on other banks, notes, drafts, and other collection items. They may also arise from credits to depositors' accounts by the various departments of the bank, such as the loan or foreign departments. Such deposits are sometimes called **derivative deposits,** because they are created by a bank's credit granting activities, while deposits of cash and claims on other banks are termed **primary deposits.** If a bank creates derivative deposits too freely it will lose reserves, and may have to borrow or otherwise recoup them. An individual bank usually gains primary deposits when the banking system as a whole is expanding, and it can then usually expand derivative deposits on its own account. Conversely, a bank must often contract its derivative deposits by calling loans and selling bonds held for investment when other banks are reducing their outstanding credits and causing a shrinkage in the total volume of deposits. Any bank which does not fall in line when credit contraction sets in is likely to lose reserves to other banks which are selling investments or calling loans, and thus drawing reserve balances from banks that do not do so. Each bank is a member of the **banking system,** and must plan its operations with that fact continually in mind.

SERVICES OFFERED DEPOSITORS.—Numerous services and inducements are offered to secure primary deposits and borrowing customers. The greatest service, which is too often taken for granted, is the privilege of drawing **checks** on deposit accounts. This privilege of payment by check is of enormous convenience, reduces the risk involved in cash payments by mail or personally, furnishes the depositor a receipt in the form of a cancelled check for his payments, and, through a monthly statement of account, greatly simplifies the depositor's bookkeeping.

Collection services rendered free or for nominal charge by a bank are equally indispensable in modern business. Local items are collected through the clearing house. Through its correspondents a bank will collect a draft, note, bill of exchange, or similar item due any place in the United States or abroad. No charge is made for handling checks and a very modest charge—usually less than a dollar—is made for collecting other items. Through correspondents and branches, a bank will transfer a depositor's funds anywhere in the world.

Payroll service is another valuable service to business depositors. Banks will either put up the payroll in cash in envelopes (in large cities they will deliver it by armored car), or will furnish special facilities for cashing the payroll checks of employees on some standard identification basis.

Banks also extend **loans** to depositors. In times of financial stringency, they favor depositors over other applicants for credit. But competition

for loans has been so keen in recent years that banks have readily granted loans to all desirable applicants.

COMPETITION FOR DEPOSITS.—Before 1933, competition for primary deposits through rendering services without charge and the payment of interest on deposit balances weakened many banks. The great epidemic of bank failures in 1931–1933, culminating in the nationwide bank holiday in March, 1933, resulted in the adoption of safeguards to prevent competitive practices that weaken banks by destroying earning power, or encouraging speculative loans and investments to recoup losses due to large interest payments and costly services to depositors.

RESTRICTIONS ON PAYMENT OF INTEREST ON DEPOSITS.—The Banking Act of 1933 and subsequent legislation amended the Federal Reserve Act as follows:

1. No member bank of the Federal Reserve System "shall, directly or indirectly, by any device whatsoever, pay any interest on any deposit which is payable on demand."
2. "The Board of Governors of the Federal Reserve System shall from time to time limit by regulation the rate of interest which may be paid by member banks on time and savings deposits and shall prescribe different rates for such payment on time and savings deposits having different maturities, or subject to different conditions respecting withdrawal or repayment, or subject to different conditions by reason of different locations, or according to the varying discount rates of member banks in the several Federal Reserve districts." As will be noted, this section is mandatory rather than permissive. The Board is required to set limits on rates paid and also to prescribe different rates. In fact, a literal interpretation of the term "shall prescribe" would require the Board to set the exact rates which might be paid under each set of circumstances and not merely promulgate maximum rates. So far, however, the Board has seen fit to fix only maximum rates.
3. "No member bank shall pay any time deposit before its maturity except upon such conditions and in accordance with such rules and regulations as may be prescribed by the said Board, or waive any requirement of notice before payment of any savings deposit except as to all savings deposits having the same requirement."

The Banking Act of 1933 also prohibits any member bank from rendering any free service which is tantamount to payment of interest on demand deposits, or the effect of which is equivalent to the payment of a rate of interest on time or savings deposits in excess of the maximums established by the Board. Absorption by a bank of exchange charges levied on out-of-town checks deposited with it has been barred by the Board of Governors of the Federal Reserve System under this provision.

The Federal Deposit Insurance Corporation imposes similar restrictions on insured nonmember banks.

FEDERAL DEPOSIT INSURANCE.—Beginning in 1907, several western states tried deposit guaranty plans for their state-chartered financial institutions to avoid losses to depositors from bank failures. All these schemes failed because too many of the banks could not survive depressions, and losses soon exceeded reserves in the guaranty funds. Also, depositors did not discriminate in the choice of state banks

when they thought them equally "safe," and reckless banking was encouraged. Despite unsatisfactory experience with state deposit guaranty plans, political pressure was so great for national legislation to protect depositors from loss due to bank failures that the Banking Act of 1933 set up a system of federal deposit insurance which the Banking Act of 1935 made permanent.

The Federal Deposit Insurance Corporation.—The Federal Deposit Insurance Corporation is managed by three directors, one of whom is the Comptroller of the Currency and the other two appointed by the President of the United States with the advice and consent of the Senate. The Corporation has repaid the capital originally provided by the Treasury and Federal Reserve banks, so that in effect it belongs to its member banks. In addition to the large surplus accumulated from assessments, the Corporation may borrow up to $3,000,000,000 from the Treasury, should an emergency arise.

Insured Banks.—All national banks and all state banks which are members of the Federal Reserve System are required to become members of the Federal Deposit Insurance Corporation. State banks with deposits of less than $1,000,000, even though they are not members of the Federal Reserve System, are eligible for deposit insurance if they meet the standards of the Federal Deposit Insurance Corporation, as determined by an examination by the Corporation's examiners.

Any national bank withdrawing from the insurance fund is required to surrender its national charter. Any state-chartered member of the Federal Reserve System withdrawing from the fund forfeits Federal Reserve membership. Any insured bank, which is not a member of the Federal Reserve System, may withdraw from the insurance plan upon 90 days' written notice to the Corporation and adequate notice, by publication or otherwise, to its depositors. In any case of withdrawal, deposits at the time are covered for a period of 2 years, and the regular assessments must be paid on them.

Insured Accounts.—The Federal Deposit Insurance Corporation insures up to $5,000 of each deposit account in an insured bank. This maximum of $5,000 of insurance applies to a depositor's account in one bank. By maintaining a deposit in more than one bank, a depositor secures $5,000 of deposit insurance in several institutions. Furthermore, funds held by a bank as trustee are insured to the extent of $5,000 for each trust estate. This insurance is in addition to the $5,000 of insurance on the deposit account of the trust department patron in the same bank.

The assessment levied by the F.D.I.C. for this insurance is 1/12 of 1% per annum on total collected deposits. This assessment or premium is payable to the Corporation semiannually at the rate of 1/24 of 1% of average net deposits during the preceding 6 months. The Board of Directors has discretion to lower the assessment. This premium is computed on total deposits, rather than on insured deposits only. This places a disproportionate burden on the large city banks whose depositors carry balances far in excess of the insurance limit of $5,000. Thus, on a million dollar deposit the F.D.I.C. assessment would be $83.33, or 1/12 of 1%, but only $5,000 of the deposit would actually be insured.

A country bank with most deposit balances under $5,000 may have nearly 100% insurance of its deposits. The argument for this procedure is that an assessment based on insured deposits only would be inadequate, while the whole banking system benefits from protection of depositors from the danger of loss due to bank failures, which precipitates "runs" on banks and so exaggerates the evil in depression periods.

Prevention of Unsound Practices by Insured Banks.—State experience with deposit guaranty proved that insurance of deposits could be successful only if accompanied by preventive measures to reduce the number of bank failures to a minimum. Provision is made in the Act for guarding against unsafe and unsound practices on the part of insured banks in conducting their business. Upon the discovery of any such practices the board of directors of the Federal Deposit Insurance Corporation is directed to call the attention of the proper authority to such practices—of the Comptroller of the Currency, in the case of a national bank; of the state supervising banking authority, in the case of a state bank not a member of the Federal Reserve System; of the Board of Governors of the Federal Reserve System in the case of state bank members of the Federal Reserve System. The practices objected to must thereupon be stopped within 120 days or any shorter period as the supervising authority may require. If they are not, 30-day notice is given to the offending bank of the intention to terminate its status as an insured bank. A hearing is thereupon granted to the bank, and if the allegations made against the bank are established, its connection with the deposit insurance system ceases on a date named so far as additional deposits, whether by old or new depositors, are concerned.

Additional capital was provided banks by the Reconstruction Finance Corporation, following the establishment of deposit insurance, and other legislation was adopted to tighten restrictions on speculative investments. Huge purchases of government obligations by banks have greatly improved the quality of bank investments. The F.D.I.C. has been active in preventing bank failures by sponsoring and aiding mergers of weak banks with stronger institutions.

Payment of Insured Deposits.—Whenever an insured bank is unable to pay its depositors and is closed, insured deposits are made available to depositors at once by the Federal Deposit Insurance Corporation. Deposits equal to those insured are available in a new bank organized for the purpose, or in an existing insured bank, or by such other method as the corporation may deem advisable. The corporation thereupon succeeds to the rights of the depositors in the assets of the failed bank, if it is a national bank. In the case of a state bank the corporation will not make payments on insured deposits until the depositors have assigned their claims to the corporation, or such assignment is effected by state law or otherwise. The corporation acts as receiver to liquidate the failed bank if it is a national bank, and must accept appointment as receiver in the case of a failed state bank if requested to do so by state authorities. The new bank organized to make available insured deposits in the failed bank may within 2 years be converted into a national bank or sold to another bank. Otherwise, it must be liquidated by the Federal Deposit Insurance Corporation. In

this way, it is sought to maintain continuity of banking services in the community where the failed bank is located.

Payment of Dividends and Interest by Insured Banks.—No insured bank may pay dividends on its capital stock or interest on any capital notes or debentures outstanding, if such interest is payable only out of net profits, while it remains in default on the payment of any assessment due to the Federal Deposit Insurance Corporation. Any director or officer of an insured bank who participates in such declaration or payment is subject to fine or imprisonment. However, the prohibition of such dividend or interest payments does not apply if the default in the payment of an assessment is due to a dispute between the insured bank and the corporation. In that case, the bank only need deposit satisfactory security with the corporation.

The board of directors of the Corporation may, by regulation, prohibit the payment of interest on demand deposits in insured member banks, and for such purpose may define the term "demand deposits." From time to time, the board is also to limit by regulation the rates of interest or dividends which may be paid by insured nonmember banks on time and savings deposits, but such regulations must be consistent with the contractual obligations of such banks to their depositors. For the purpose of fixing rates of interest or dividends, the board is charged with the duty of prescribing different rates for deposits having different maturities, or subject to different conditions respecting withdrawal or repayment, or subject to different conditions by reason of location or according to the varying discount rates of member banks in the several Federal Reserve districts. The board is to define by regulation what is to constitute time and savings deposits in an insured **nonmember** bank.

The Federal Deposit Insurance Corporation thus has substantially the same authority over interest rates, etc., for insured banks which are not members of the Federal Reserve System that the Board of Governors of the Federal Reserve System has over member banks. This has led to some conflict of authority, particularly with respect to the definition of practices which are to be considered the **equivalent of the payment of interest.** On the absorption of exchange charges on out-of-town checks by a depositor's bank, different rulings were issued by each agency.

DEPOSITS ARE LIABILITIES.—It should never be overlooked that deposits are liabilities of banks. The relationship between the bank and the depositor is that of debtor and creditor. The bank becomes the legal owner of the cash, negotiable instruments and other items deposited for immediate credit. The depositor is merely a general creditor. In the collection of notes, drafts and similar items for which immediate credit is not given, however, the bank acts as the depositor's agent and does not become the owner until collection has been effected and credit given.

RIGHT OF SET-OFF.—In case of bank failure, a depositor may set-off any unsecured debt he owes the bank against his deposit (which is unsecured), and must pay in cash only the balance due the bank, if any. In set-offs, the claims involved must be of equal character. Thus, if a bank has made a secured loan to a depositor, the latter cannot set-off his deposit balance against the loan because the claims are not

equally secured. This right of set-off (or offset), and payment of the net balance due, applies only to the commercial department of the bank. There can be no set-offs in the savings department or between the savings department and the commercial department, except that a depositor with a savings account who has an obligation due in the commercial department may set-off that obligation with his deposit credit even though assets available for distribution to the demand depositors are thereby diminished. This is in conformity with the usual attitude of the courts to prefer savings as against commercial depositors. (Yale Law Jour., vol. 42, p. 144.)

Checking Accounts

SELECT A BANK.—Although there are exceptions, most banks insist on a personal introduction as a prerequisite to opening a checking account. Such safeguards are not considered imperative in the case of thrift, savings, or other nonchecking accounts.

Before approaching a bank to open an account, the prospective depositor should ascertain the character of the institution and its banking services. He should find out whether the bank welcomes checking accounts of the size which he proposes to maintain. Some banks require minimum balances of $5.000 and more for such accounts, whereas other banks will permit minimum balances as low as $200 or $300—and a few country banks even lower. Some banks have officers who are friendly and helpful and do everything possible to assist even small depositors. Other banks have officers who are aloof, coldly correct, and uninterested in smaller depositors.

HOW TO OPEN A CHECKING ACCOUNT.—Having selected a suitable bank, the prospective depositor arranges for a personal introduction to one of the officers. Ultimately, an interview is had with the officer in charge of new accounts. This officer explains the bank's requirements and regulations. He then asks the prospect to fill in a New Account card giving personal identification data, such as the names of parents (and, possibly, grandparents), street address and town where born, and similar information. In addition, this card calls for information on previous accounts, present accounts at other banks and business connections. If this information indicates to the interviewing officer that the account will be satisfactory, **signature cards** are signed, a pass book issued, and the account officially opened.

Advantages of a Personal Checking Account.—Various services, some well known and many little known, are offered free to those with checking accounts. One of the most obvious and important is the collecting of checks, notes, drafts, and similar instruments, and crediting of the proceeds to the account of the depositor. The account is frequently used as the basis of credit reference given to inquirers by officers of the bank. A bank account avoids the risk of the use of cash. It enables the depositor to secure funds any place where he can "cash" a check. It simplifies personal budgeting and record keeping by furnishing receipts in the form of cancelled checks. It furnishes proof of payment and thus avoids duplicate payments and claims.

Maintenance of a satisfactory checking account is the first step in developing a personal line of credit. Many a young man maintains a savings account on which a small return is realized when it would be more profitable in the long run for him to maintain a checking account. Development of a close and friendly banking relationship may prove a very valuable asset, especially if there is any prospect of his going into business for himself.

OPENING A CORPORATE DEPOSIT ACCOUNT.—Banks must exercise particular care in handling a corporation's account. They must be careful in paying money out as it may later be claimed that the money was not used for corporate purposes or that the withdrawal did not have proper authorization.

Before opening an account for a corporation, a bank will require the filing of a resolution of the board of directors authorizing the opening and operation of the account, specifying the officers who are authorized to sign checks and other instruments of payment, and clearly indicating what officers have the authority to borrow at the bank and otherwise pledge the credit of the corporation. This resolution must be filed under seal by the secretary of the corporation. In addition, the secretary must certify that there is nothing in the charter or by-laws which limits the authority given in the resolution.

Most banks have printed forms prepared by their counsel, which the corporation's board of directors must pass and its secretary authenticate and file with them. A typical resolution form is reproduced in Fig. 1.

Throughout the banking relationship, everything is in the name of the corporation and all checks, notes, etc., should be endorsed with the corporate name followed by the name of the officer who authenticates the corporate signature by signing his own name. Thus a typical corporate signature would be "Products, Inc., by John Doakes, Vice President and Treasurer" and not simply "John Doakes, Treasurer."

PARTNERSHIP ACCOUNTS.—Partnership accounts are opened on practically the same basis as individual accounts. The bank will, however, require the filing of a copy of the partnership agreement, as all the dealings of the partners with the bank should conform to this agreement.

JOINT ACCOUNTS.—A savings, thrift, or checking account may be opened with most banks in the name of two people, either as tenants in common, or as joint tenants. As **tenants in common** either party may make deposits, and endorse checks, drafts, notes, etc., for deposit, but must act jointly when withdrawing funds. In event of the death of one of them, the balance to the credit of the account is divided equally between the survivor and the estate of the deceased. The survivor may withdraw his or her share by furnishing such proof of the death of the other party as the bank may require. The share belonging to the estate of the deceased may be withdrawn upon filing with the bank, a surrogate's certificate, and tax waiver.

As **joint tenants** either party, during the lifetime of both, may make deposits and endorse checks, drafts, notes, etc., for deposit, and may at will withdraw or dispose of the whole or any part of the funds deposited. In event of the death of one of them, the survivor may withdraw the balance to the credit of the account upon filing with the bank a tax

Authorization of Corporate Account

I, ..., hereby certify that I am ..... and the official custodian of certain records
(Official Title)
including the charter, by-laws and minutes of meetings of stockholders and Board of Directors of .....,
(Corporate Title)
a corporation of the State of .....; that at a meeting of the Board of Directors of said Corporation, duly called and held on the ..... day of ....., 19...., at which a quorum was present and voted in favor of the same, the following resolutions were duly adopted:

RESOLVED, that THE COMMERCIAL NATIONAL BANK AND TRUST COMPANY OF NEW YORK be and hereby is designated as a depositary of the funds of this Corporation; and further

RESOLVED, that each of the following officers, viz:*

be and they hereby are authorized from time to time, for and on behalf of this Corporation, to sign checks, drafts or orders for the payment or withdrawal of funds of this Corporation; and further

RESOLVED, that said Bank be and hereby is authorized to pay any and all said checks, drafts or orders drawn on the account of this Corporation with said Bank and signed as above provided, including such as may be drawn to the order or endorsed in favor of any officer signing and/or endorsing the same: and further

RESOLVED, that the ..... or ..... of this Corporation be and hereby is authoized and directed to certify to said Bank under the seal of this Corporation, a copy of these resolutions and from time to time to certify to said Bank the names, and to deliver to said Bank specimen signatures, of the persons at the time of such certification holding the respective offices hereinabove mentioned; and further

RESOLVED, that until said Bank shall receive a certificate under the seal of this Corporation as to the expiration or termination of office of any person so certified to be an officer of this Corporation, said Bank may rely absolutely upon the authority of such person to sign as such officer as herein provided; and further

RESOLVED, that the foregoing powers and authorities shall continue in force until formally rescinded and written notice of such rescission filed with said Bank.

AND I DO FURTHER CERTIFY that there is no provision in the charter, by-laws or any obligation or agreement of the Corporation which impairs, limits or is inconsistent with the authority conferred by the foregoing resolutions; and that the following are the officers of said Corporation duly elected by its Board of Directors:

President .....
Vice-President .....
Secretary .....
Treasurer .....

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of said Corporation this ..... day of ....., 19.....

Corporate Seal .....
(Signature and Official Title)

* Should more than one signature be required, indicate *by title* what officers are authorized to sign in conjunction with one another; should counter-signature be required indicate officers authorized to sign and/or countersign.

FIG. 1. Resolution Authorizing Opening of Corporate Account (To be certified by secretary of corporation)

waiver. Because of the convenience afforded, such accounts are extensively used by husband and wife, and other members of the same family, but they may be opened by any two persons whether or not related to each other. As to joint tenants, the New York Banking Law provides:

When a deposit shall have been made by any person in the name of such depositor and another person and in form to be paid to either, or the survivor of them, such deposit thereupon and any additions thereto made, by either of such persons, upon the making thereof, shall become the property of such persons as joint tenants, and the same, together with all interest thereon, shall be held for the exclusive use of the persons so named, and may be paid to either during the life time of both, or to the survivor after the death of one of them; and such payment and the receipt or acquittance of the one to whom such payment is made, shall be a valid and sufficient release and discharge to said bank, for all payments made on account of such deposit prior to the receipt by said bank of notice in writing signed by any one of such joint tenants, not to pay such deposit in accordance with the terms thereof.

MAKING A DEPOSIT.—The bank will accept for deposit checks, sight drafts, matured coupons of United States bonds, and, of course, cash. Immediate credit is given, but immediate withdrawal is permitted only in the case of cash deposits. Ordinarily, a deposit slip is prepared in duplicate by the depositor and presented with the items deposited. The teller checks the deposit slips and, if everything is in order, he initials one copy and returns it to the depositor as his receipt. The pass book is less commonly used for this purpose.

Banks require depositors to prepare this deposit slip themselves, as it is an original entry and legally binding on the bank after it has been initialed by the teller. Fake claims of mistakes in deposits can be successfully countered with a deposit slip prepared by the depositor himself.

Care should be exercised in preparing this deposit slip. Each check should be listed separately and with it the name of the city on which it is drawn if it is out of town and the name of the bank if it is a local one. Cash should be listed as indicated. Dollar signs should be omitted and all figures should be placed directly under one another, so that additions may be quickly made and easily verified.

All deposits are accepted subject to actual collection and receipt of proceeds. The bank thus reserves the right to charge back to the account unpaid checks drawn on other banks. This right is based on the warranty of the endorser as provided in the Uniform Negotiable Instruments Act.

WHEN DEPOSITED ITEMS ARE AVAILABLE FOR WITHDRAWAL.—While the bank gives immediate credit in the deposit account for checks deposited, only the proceeds of those drawn on the bank itself can be withdrawn immediately in cash. Immediate credit to the depositor's account of checks drawn on other banks is for the convenience of the bank itself, but it will not actually receive payment from the drawee banks until some time later. Because of this, depositors are not permitted to draw on such a deposit until the bank receives payment and is thus reimbursed for the credit which it has advanced to the customer's account. Until payment is received by the bank, such deposit credits are referred to as **uncollected funds**, which indicates they are unavailable.

Banks may collect these **cash items** through their own correspondents or through the Federal Reserve banks. While large checks and those drawn on banks in certain cities are generally collected by banks, especially larger institutions, through their correspondents, by far the greater part of the checks of the country are routed through the Federal Reserve banks for collection under the par clearance system maintained by the Federal Reserve System.

There have been continuous efforts through the years to speed up the check collection process, so as to make funds available to depositors as soon as possible. The air mail and speed-up methods such as maintaining night shifts of bank clerks are utilized. As transportation has been speeded up, the time required for collection has been steadily shortened. Credit risks have been reduced as the "uncollected" time has been reduced. A forger has less time to get away before detection.

Each Federal Reserve bank furnishes its district member banks and its nonmember clearing banks a schedule giving the time required to collect checks anywhere in the country. This schedule is compiled from the banks' records of elapsed time in handling items drawn on the various points. If the forwarding bank is not otherwise notified, it considers items paid at the end of the period indicated in the schedule. The Federal Reserve Bank of New York in 1946 gave credit for cash items at its head office on its time schedule as shown in Fig. 2.

BANKS' PAYROLL SERVICE.—The task of preparing payrolls is another service performed by banks for depositors. A depositor may advise his bank early in the day, or preferably the day before, as to the amount and denominations of currency and specie desired, and the bank will accordingly prepare the payroll and deliver it promptly upon presentation of the depositor's check for the amount. Should the depositor prefer to pay his employees by check, he can file a schedule of their signatures with the bank and arrange for payment upon presentation without identification beyond that afforded by comparison of endorsements with signatures on file. Under a rule of the New York State Banking Department, payrolls cannot be delivered outside the banking office.

CERTIFICATION OF CHECKS.—To certify a check an officer or teller of the bank stamps or writes upon its face the word "Good," "Accepted," or "Certified," and affixes his signature. By this means the bank signifies that it will honor the check if properly endorsed when presented for payment. Ordinarily, the **contract of certification** extends only to the genuineness of the drawer's signature and the sufficiency of the deposit, endorsements not being guaranteed.

Certification transforms a maker's order into a bank's promise to pay. It is not subject to nonpayment because of stop-payment orders, insufficient or uncollected funds or other nonapparent defects, where the holder is shown to have given value in reliance on the certification. As against the bank, the demand of the holder of a certified check is sufficient if it is made within the period limited by the statute of limitations, which is usually 6 years.

When a check is **certified at the request of the holder,** the maker is released from all further liability on the check, but when **certification is requested by the maker,** he remains liable to the holder if the bank, for any reason, fails to pay the check. Regardless of payment by the

IMMEDIATE CREDIT

† Immediate credit will be given for the following items when received within the applicable closing time:

† When received in time for presentation through clearing houses or special collection arrangements on day of receipt—

Items drawn on or payable at

New York Clearing House Association banks
Certain other New York City banks
Northern New Jersey Clearing House Association banks

Lists of banks referred to will be furnished upon request

† When received by 10 a.m. (Saturdays 9 a.m.), if separately sorted and listed—

Checks and warrants on Treasurer of the United States, Washington, D. C.

† When received by 3 p.m. (Saturdays 1 p.m.)—

Checks on Federal Reserve Bank of New York (including Buffalo branch)
Officers' checks of other Federal Reserve banks
Federal Reserve Exchange Drafts.

DEFERRED CREDIT

† Credit for other items payable in New York City, when received within the applicable closing time, will be given two business days after receipt.

† Credit for other items payable outside of New York City, when received within the applicable closing time, will be given as specified below:

CLOSING TIME FOR DEFERRED-CREDIT ITEMS

Payable in Second Federal Reserve District

1:30 p.m. Saturdays 12:30 p.m.
Items $500 and over 2:30 p.m. Saturdays 12:30 p.m.

Payable in other Federal Reserve Districts

12:30 p.m. Saturdays 12:30 p.m.
Items $500 and over 2:30 p.m. Saturdays 12:30 p.m.

Federal Reserve Bank or Branch Cities in this column

†One Calendar Day After Receipt—Items payable in

Baltimore
Boston
Buffalo
Cleveland
Philadelphia
Pittsburgh
Richmond

†Two Calendar Days After Receipt—Items payable in

Atlanta
Birmingham
Charlotte
Chicago
Cincinnati
Detroit
Jacksonville
Kansas City, Kansas
Kansas City, Missouri
Louisville
Memphis
Minneapolis
Nashville
Omaha
St. Louis
St. Paul

†Three Calendar Days After Receipt—Items payable in

Dallas
Denver
El Paso
Helena
Houston
Little Rock
Los Angeles
New Orleans
Oklahoma City
Portland, Oregon
Salt Lake City
San Antonio
San Francisco
Seattle

Localities outside of Federal Reserve Bank or Branch Cities in this column

†Two Business Days After Receipt—Items payable in

Connecticut
Delaware
District of Columbia
Maine
*Maryland
*Massachusetts
New Hampshire
**New Jersey
*New York
*Pennsylvania
Rhode Island
Vermont
*Virginia

†Three Business Days After Receipt—Items payable in

*Alabama
Arizona
*Arkansas
*California
*Colorado
*Florida
*Georgia
Idaho
*Illinois
Indiana
Iowa
*Kansas
*Kentucky
*Louisiana
*Michigan
*Minnesota
Mississippi
*Missouri
*Montana
*Nebraska
Nevada
New Mexico
*North Carolina
North Dakota
*Ohio
*Oklahoma
*Oregon
South Carolina
South Dakota
*Tennessee
*Texas
*Utah
*Washington
West Virginia
Wisconsin
Wyoming

(Notes on opposite page)

FIG. 2. Federal Reserve Bank of New York Credit for Cash Items at Head Office (1946)

bank, the maker's account is charged with the amount at the time the check is certified. Should the maker of a certified check find that he cannot use it, he can endorse and deposit it in his own account, regardless of who the payee of the check may be. A maker who desires credit for a destroyed or lost certified check is required to file with the bank an indemnity bond, usually for twice the amount. Banks are not compelled to certify checks. Some will certify only under special circumstances, or for the maker and never for the payee.

Certified checks are used to a great extent in paying taxes, licenses, and other obligations to the government, deposits required in connection with sealed bids, in real estate and stock and bond transactions, etc. They are not legal tender.

STOP-PAYMENT ORDERS.—No legal reason is required of the maker for stopping payment of his check. To be binding on the bank, however, the order must be in writing and accurately describe the check to which it refers. Upon receipt of such an order, the bank as agent of the depositor must refuse payment of the check and is responsible to the depositor for omission to comply with his directions. As the risk to the bank is considerable, each of the depositor's checks received must be scrutinized until the check is found or the order is withdrawn. The risk requires that every precaution be taken to prevent the accidental payment of the check. Hence, considerable time is consumed and expense incurred in performing the necessary work. The bank is pleased to cooperate with the depositor when he makes an ethical use of the privilege. The bank has a just complaint, however, when a depositor abuses the privilege by employing it to escape the consequence of drawing against insufficient funds or for petty reasons that could have been otherwise adjusted.

RECONCILIATION OF BANK ACCOUNT.—To avoid **overdrafts,** which are criminal offenses in most states, and to detect errors, unauthorized drawing of checks, forgeries, and similar irregularities, the deposit account, as kept by the depositor, should be reconciled with the account on the books of the bank. Banks send a depositor a statement of the transactions which have taken place in the account, and the remaining balance, upon request or every 3 months, or monthly, depend-

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(Notes for Fig. 2)

This time schedule does not apply to drafts received from member or nonmember clearing banks drawn by them on their commercial bank correspondents. We will give credit for such drafts based on actual transit time, whether received at our head office in New York City or our Buffalo branch or sent for our account direct to the Federal Reserve bank in the district where such draft is payable.

† Subject also to requirements as to sorting (listed separately). Credit for items not received within the applicable closing time as herein indicated for such items will be deferred for one additional day. When items for which there are different closing times are not separately sorted and listed, credit for all such items may be deferred for the longest time for which credit may be deferred for any of such items as herein provided. When the day on which credit would otherwise be given is a Sunday, or a holiday for Federal Reserve Bank of New York, credit will be given on the following business day. When delays in the collection of items occur or are anticipated because of holidays, or interruptions or delays in transit, or other causes, credit may be deferred beyond the times indicated in this schedule, with or without notice.

* Except items payable in Federal Reserve bank or branch cities.

** Except items drawn on or payable at Northern New Jersey Clearing House Association banks.

ing on the size and activity of the account and the policies of the bank. The larger accounts are always sent monthly statements for the mutual protection of the bank and the depositor.

When this statement is received, the depositor should promptly compare it with his own records (check book or cash book) to see if there have been any errors or improper charges. This comparison and adjustment of the accounts is called a **reconciliation.** It should be done carefully because, if a depositor fails to make such reconciliation after a bank has repeatedly sent him statements of his account, and if subsequently irregularities are disclosed which could have been discovered and avoided by prompt reconciliations, the courts would probably find that the **negligence of the depositor** was a primary, or at least a contributory, cause of the **irregularity,** and that therefore he must suffer the loss occasioned by the irregularity. If there is no negligence on the

FIRST METHOD

First National Bank, December 31, 19—			
Balance per statement			$92,415.60
Add—Check of Central Manufacturing Co. protested, now returned, including $2.55 fees			502.55
Deposit of December 31 not credited by trust company			1,892.00
Collection charges for December not entered in cash book			4.80
			$94,814.95
Less—Deposit credited by bank not entered in cash book		$ 318.20	
Checks outstanding:			
6319	$ 50.00		
6682	125.00		
6714	73.10		
6716	139.45		
6717	68.25		
6718	1,000.00	1,455.80	1,774.00
Balance per cash book			$93,040.95

SECOND METHOD

Balance as per cash book			$93,040.95
Add—Checks outstanding:			
6319	$ 50.00		
6682	125.00		
6714	73.10		
6716	139.45		
6717	68.25		
6718	1,000.00	$1,455.80	
Deposit credited by bank not entered in cash book		318.20	1,774.00
			$94,814.95
Less—Check of Central Manufacturing Co. protested, now returned, including $2.55 fees		$ 502.55	
Deposit of December 31, not credited by trust company		1,892.00	
Collection charges for December		4.80	2,399.35
Balance as per bank statement of December 31			$92,415.60

part of the depositor, the bank as a general rule must bear the full loss caused by irregularites in keeping a depositor's account.

Section 326 of the New York Negotiable Instruments Law provides: "No bank shall be liable to a depositor for the payment by it of a forged or raised check unless within one year after the return to the depositor of the voucher of such payment, such depositor shall notify the bank that the check so paid was forged or raised."

There are **two methods of reconciling the monthly statements** with the balances shown by the depositor's cash book or check book. The one starts with the bank statement as a basis, and the other starts with the depositor's cash or check book balances as a basis. The two methods are illustrated on page 586.

DEPOSIT ACCOUNT ANALYSIS.—Analysis of depositors' accounts has become common, as banks have resorted to cost accounting practices to determine the sources of their profits and the cause and incidence of their expenses. They have attempted to determine the cost of handling a deposit, collecting a check and maintaining an account (overhead, administrative, and other costs). On the income side, they have allowed for the average rate of return realized on earning assets. Armed with this information, they have analyzed depositors' accounts to determine their profitability. Such an analysis is made of large accounts, but on small accounts the banks do not go to the expense of analyzing each account. They make studies of typical accounts, and then set standards of balance and activity.

In analysis of the larger accounts, the average daily balance of collected funds is first calculated. From this are deducted the necessary reserves and till money, which leaves the earning balance. This balance is multiplied by the average rate of return received by the bank to determine the income earned on the free balance. The number of items handled is next multiplied by the estimated unit cost for each item, and the product added to the overhead charged to each account. If this total is less than the estimated income, the account is turning in a profit. If it is greater than the income, the account is carried at an indicated loss. In this event, the bank resorts to special charges to the account, so that it will cover its expenses and contribute its share to earnings.

SERVICE CHARGES.—A deposit account may be unprofitable because its balance is less than average, or because the number of deposits made and checks drawn is excessive. Many methods of charging for services greater than warranted by the average balance are in use. For the most part, they are on a "metered" basis, increasing with the amount of service required by the depositor.

Most banks imposing service charges allow a specified number of checks and deposits each month without charge, if a stated minimum balance has been maintained. This balance varies from $200 to $300 for neighborhood personal checking accounts to, say, $50,000 for a large corporation account. Permissible activity without charge varies likewise. When the balance falls below the minimum, a service charge is made. Likewise, when the number of items exceeds the maximum, a charge of so much per item is made for the excess. These charges have become an important source of income for small banks, but are far less important for large institutions.

Many city banks offer special personal accounts limited to checking service. Such accounts require no minimum balance, but a charge, usually of 10¢, is made for each blank check given the depositor. A penalty is imposed for a check drawn that is not covered with sufficient funds.

Depositors using this plan of payment of service charges should realize that they do not get complete banking service. Bank credit reference, loans, and other valuable services of the bank are ordinarily not available to such depositors. A regular personal checking account, even if it is so small that conventional service charges have to be paid, is of greater value to most depositors, particularly those in business.

EXCHANGE AND COLLECTION CHARGES.—Before the Federal Reserve System installed its par clearance system, it was customary for banks not only to impose a collection charge for collecting out-of-town checks, but the paying bank usually deducted a charge for paying checks which were not cashed over its counter. This latter charge was called an exchange charge. Theoretically, it was reimbursement to the local bank for the cost of shipping currency or maintaining a balance on which it could draw to pay the sending bank. In small towns with a single bank and no competition, these exchange charges were frequently entirely disproportionate to the cost of rendering the service. In fact, collection and exchange charges became a heavy burden on trade.

Also, since each bank had its own group of correspondents to which out-of-town checks were forwarded for collection, the volume of checks in transit was very large due to circuitous routing. Often a check would travel hundreds of miles out of its way, due to the location of correspondents of the collecting bank.

Par Clearance System.—Under the par clearance system, each Federal Reserve bank collects without charge out-of-town checks deposited with member and nonmember banks which agree in turn to remit without deduction of exchange charges (i.e., at par) for all checks drawn on them. Since the Federal Reserve banks make no charges for collection services, they collect checks for the great majority of banks. A limited number of small banks that insist on deducting exchange charges remain outside the system.

Par Collection Process.—While members of the par clearance system collect some of their larger checks through their own correspondents and still maintain special sending and collection arrangements where the volume of items or unusual situations warrant, the great bulk of out-of-town checks is sent directly to the Federal Reserve banks. There the items are sorted by districts, and those drawn on other districts are forwarded to the appropriate Federal Reserve bank or branch. Those which are drawn on member banks or participating banks in the Federal Reserve bank's own district are charged directly to the reserve accounts of members or the collection accounts of nonmembers, and the account of the forwarding bank is credited. The Federal Reserve banks thus in effect constitute clearing houses for all participating banks.

A further development of the Federal Reserve par clearance service is the practice of **direct sending,** whereby a clearing bank, which has received permission, sends items payable in other districts directly to

other Federal Reserve banks for the account of its own Federal Reserve bank, and receives credit in turn in its own account.

Whether sent to its own Federal Reserve bank or directly to the Federal Reserve bank in another district, credit is given to the sending bank on the basis of the **deferred availability schedule.** This schedule, which differs for each Federal Reserve bank, states when banks may take credit for out-of-town checks deposited for collection. If advice of nonpayment is not received, the assumption is that checks have been paid.

The sending of checks from one district to another results in debit and credit entries between Federal Reserve banks. These result in debits and credits on the books of the Inter-District Settlement Fund in Washington, which obviates the need for large currency shipments between cities.

Nonpar Banks.—Small country nonmember banks which refuse to remit at par remain outside the par clearance system. Federal Reserve banks refuse to accept for collection any checks drawn on nonpar banks.

Banks which receive checks drawn on a nonpar bank have to fall back on the **correspondent system** to collect them. Every effort is made to present the check for payment over the window, so that the full amount will be received. This is impossible, however, in the case of country banks distant from the collecting correspondent. In such cases, the exchange charge deduction cannot be avoided. This may be as much as two or three dollars on a check.

COLLECTION SERVICE.—Depositors bring many credit instruments to banks for which immediate credit cannot be given. **Cash items** for which immediate credit is given consist almost entirely of checks and government bond coupons. **Collection items,** on the other hand, are (1) credit instruments which are not yet due, or (2) drafts on which the ultimate payer has not yet acknowledged indebtedness, or (3) obligations with documents attached to be delivered upon payment. These are not credited to a depositor's account until the proceeds have actually been received by the bank.

Collection items include:

1. Notes, drafts, acceptances, and coupons which must be presented for payment at the place of business of a firm or corporation, or at a bank, or at the place of business or home of an individual.
2. Drafts and other instruments with documents attached which are surrendered on payment or acceptance of the drafts.
3. Instalment contracts and notes secured by mortgages or trust deeds, which call for periodic payments.

In depositing items for collection, the customer should instruct his bank as to what he wishes done in case of nonpayment or nonacceptance. If an item has documents attached, he should specify the manner of handling it and the conditions under which delivery of the documents is to be made. All instruments entered for collection should be endorsed "for collection," as by so doing all holders of the respective items will be given notice of their true character, and the items themselves, or their proceeds, cannot be held against the claim of the true owner.

Inasmuch as the collecting bank acts as the depositor's agent, it cannot be held responsible for loss, provided it and its correspondents follow the instructions of the depositor and use due diligence and care

in protecting his rights. A collecting bank is authorized to receive money only, and has no implied power to take a check or anything other than money in payment. If it takes a check and surrenders the item held for collection, it makes the check its own and becomes liable to the principal for the amount of the check as if it had received cash.

Local collections are made by the bank's own messengers or through the city collection department of the clearing house in many of the larger cities. Out-of-town collections are generally forwarded to local correspondents directly by the larger banks. The larger banks may, and the other banks usually, collect such items through the country collection department of the Federal Reserve banks. Whatever method is used, a small fee is charged and is deducted from the proceeds collected. These collection charges are little more than nominal. They include any direct expense or disbursements incurred, plus standard charges designed to cover the cost of operating the collection departments of the bank. Most banks view the operation of these departments as a service maintained for the convenience of depositors and correspondents. Collection is a very valuable service rendered business by the banks at cost and often at less than cost.

Investments

ROLE OF INVESTMENTS.—Bank investments in securities have vastly increased in importance during recent years. During World War II, banks bought government bonds in volume that would have been regarded as fantastic previously. But the dearth of commercial loans caused commercial bankers to invest in securities on an increasing scale after World War I.

The purchase of bonds by banks violates the orthodox theory of maintaining bank **liquidity** through holding short-term, self-liquidating obligations. But bonds have been bought on the theory that they are **marketable** in an emergency—that is, that they could be sold to another bank or to a nonbanking holder for cash as readily as, or more readily than, payment could be secured on the 60- or 90-day commercial obligations. Experience has shown that marketability may become impaired in an emergency, as during 1930–1933. When banks and other financial institutions are attempting to liquidate at the same time, security portfolios tend to become frozen. Hence, less stress has been given marketability and more to **shiftability,** i.e., the ability to sell investments to the Federal Reserve banks or use them as collateral for loans from these institutions.

Government obligations are especially favored as bank investments because they can be shifted to the Federal Reserve banks in one way or another.

SECURITIES ELIGIBLE FOR BANK PURCHASE.—Under the National Bank Act, national banks were permitted to discount and negotiate "promissory notes, drafts, bills of exchange, and **other evidences of debt.**" The Comptroller of the Currency ruled that bonds were "evidences of debt" and were in consequence legal for banks to purchase. The McFadden-Pepper Act of 1927 permitted national banks to buy "bonds, notes, or debentures commonly known as investment securities" and instructed the Comptroller to define "investment securi-

ties" for the guidance of the banks. This he did in terms of marketability, by ruling that "sales at intrinsic values" must be readily possible on an issue to make it appropriate for bank purchase.

As the law now stands, a bank may not invest more than 10% of its capital and surplus in the securities "of any one obligor" and it must observe the regulations of the Comptroller with respect to type, quality, and accounting of investments. Regulations issued under the Banking Act of 1935 set up stricter qualitative standards for bank investments.

To qualify as an "investment security," a bond must be one in which the investment characteristics predominate. Purchase of bonds convertible into stocks or low-grade bonds, in which the investment characteristics are distinctly or predominantly speculative, is expressly prohibited. Ratings by statistical services within the four top rating classifications indicate investment quality, but are not necessarily conclusive. They are used by bank examiners, however, to determine whether the bank's investments conform to the Comptroller's regulations. Responsibility for proper investment of the bank's funds in securities lies with the directors of the bank just as it has in the past.

A bond must also "be salable under ordinary circumstances with reasonable promptness at fair value." It must be either one of a public distribution of securities, or issued by an obligor which has other securities with public distribution which would insure the marketability of the issue under consideration. If there is no public distribution, it must mature not later than 10 years after issuance and must provide for amortization of at least 75% of the principal before maturity.

Government, state, and municipal bonds are automatically eligible for bank investment, as are issues of the Federal Home Loan banks, the Federal Farm Mortgage Corporation and securities originating under the Federal Farm Loan Act. All bonds, domestic and foreign, which meet the quality standards may be purchased. But the purchase of stocks is barred, except for stock in the Federal Reserve bank, safe deposit subsidiaries, and others specifically authorized in the banking law. These regulations apply not only to the national banks but also to state banks which are members of the Federal Reserve System.

PREFERENCE FOR GOVERNMENT OBLIGATIONS.—Securities issued by the federal government have always enjoyed a marked preference on the part of the banks from every standpoint except yield. The financing of World War II vastly increased the available supply of government bonds. The method of financing the war depressed interest rates generally, and yields on high-grade corporate bonds fell almost as low as those on Governments. During World War II, the Federal Reserve banks bought some $22 billion of government obligations, mostly short-term issues. These were bought (1) to expand bank reserves so as to enable commercial banks to buy more government obligations despite a huge rise of currency circulation, and (2) to support quotations of government securities.

The following features make government securities especially attractive to banks:

1. The intrinsic quality of government securities, backed as they are by the unlimited taxing power of the government.
2. Through them, banks can unfailingly secure access to Federal Reserve credit without paying penalty rates.

3. Wide fluctuations in price are prevented by market stabilization operations of the Federal Reserve banks for their own account, and for Treasury account. No other type of security enjoys such powerful artificial support.
4. They are preferred over other investments by the bank examiners and the supervisory authorities.
5. The Federal Reserve banks during and after World War II stood ready to buy Treasury bills from a member upon request, and through dealers bought all certificates of indebtedness offered them.

Apart from considerations of yield, a bank can properly invest as large a proportion of its resources as it wishes in government securities. But the distribution of maturities must reflect the character of the bank's other assets and its liabilities. Obviously, a bank can have too many long-term bonds, whether government or otherwise. Subject to the requirements of their portfolios, banks have the option of buying the following types of government securities:

1. **Treasury bills** with a maximum maturity of 3 months and a discount yield of less than 1% per annum.
2. **Certificates of indebtedness** with a maturity of one year and a somewhat higher yield.
3. **Treasury notes** with a maturity of 1 year to 5 years and a coupon rate of 1 to 1½%.
4. **Bonds** eligible for bank purchase with maturities up to 25 years and with coupon rates of 2 to 2½%.

VALUATION OF INVESTMENTS.—Prior to the 1930–1933 banking difficulties, most banks carried investments at cost, less a reserve for amortization of the premium on bonds bought above par. Further reserves were set up by those banks which were strong enough to do so against future defaults or unusual declines in market prices. This valuation method proved impracticable in the depressed bond markets of 1932 and 1933. If the examiners had forced banks to write down their holdings of securities to the low prices prevailing in the bond market at that time, too many banks would have had their capital impaired. Hence, valuations were based on "intrinsic values," rather than market prices, at that time.

National and state regulatory authorities in 1938 adopted the following classification of investments for bank examination purposes:

Group I. This group includes only securities "in which the investment characteristics are not distinctly or predominantly speculative. The group includes general market obligations in the four highest grades, and unrated securities of equivalent value." This entire group is valued at cost. No allowance is made for either appreciation or depreciation, except that premiums paid above par must be amortized.

Group II. These securities are those "in which the investment characteristics are distinctly or predominantly speculative. This group includes in general market obligations in grades below the four highest, and unrated securities of equivalent value." Securities in this group are valued at the average market price of the 18 months immediately preceding the bank examination and at least 50% of the net depreciation, if any, must immediately be deducted from the capital of the bank in determining its solvency.

Group III. This comprises securities in default which must be immediately written down to the market.

Group IV. This grouping includes stocks and similar holdings. All depreciation on them is considered a loss and must be written off against capital immediately.

Statements of condition published in the newspapers by banks usually show securities valued on the basis of cost. Such reports may differ from an examiner's report based on the methods outlined above. More conservative banks may value investments at market, if this is below cost, or at cost less a reserve.

PROFITS FROM SALE OF SECURITIES.—Regulations of the Comptroller of the Currency require banks to use profits on sales of securities to offset losses. A bank must first write off existing losses and then set up adequate reserves against possible future losses. All losses must be covered and adequate provision for future losses must be made before profits from the sale of securities can be used for any other corporate purposes.

Short-term trading profits should not be the aim of bank portfolio management. Banks which have such a trading policy tend to buy securities of poorer quality at times merely because it is felt they have prospects of appreciation. But if the price does not rise as expected, or if it drops, the security is often frozen in the bond account. Thus, the quality of the portfolio may deteriorate. This does not mean that every security must be held to maturity. Switches which increase safety or income can frequently be made with changes in economic trends. Likewise, prospective changes in interest rates may warrant shifts from short-term to long-term obligations, or vice versa. But bonds are bought by banks primarily for interest income, not capital gains.

THE INVESTMENT DEPARTMENT.—Responsibility for investment of the bank's funds rests with its officers and directors. While they use ratings of statistical services, they cannot shift the blame if mistakes are made and losses are incurred due to negligence. In addition to investing their own surplus funds, banks select and buy securities for trust funds under their control. They also must advise correspondent banks and other customers on the securities which they purchase, and larger institutions maintain facilities for executing security orders for them.

The statistical, analytical, and clerical work involved is often centered in one department, although the trust department frequently has a separate group doing trust investment work. The investment department makes analyses of securities it considers good purchases for the bank to make. It periodically reviews the securities already purchased to see if changes should be made. While the department is a relatively small one, the work is of tremendous importance to the bank. No department is more closely watched by the senior officers of the bank.

Portfolio Policy.—The investment policy of a bank should be fitted to the character of its deposit liabilities, the liquidity and soundness of its other assets, and its capital structure. If any one of these three is disregarded in policy formulation, difficulties may develop.

Of these three considerations, the relative **stability of deposits** is by far the most important. Banks with a large proportion of savings and other time deposits, or with demand deposits which do not greatly vary

in volume from time to time, do not have to be ready to meet the heavy withdrawals as do banks in the financial centers. A "bankers' bank" must keep especially liquid as wide variations in its deposit total will occur.

The **character of the other assets** of the bank is also of controlling importance in the selection of securities to be purchased. If other assets are highly liquid, the bank is warranted in purchasing long-term bonds which might be salable at a loss, because deposit withdrawals can be met out of other resources. But if the bank is heavily burdened with long-term bonds, mortgages, term loans, and other relatively "slow" assets, it should confine future purchases to the highest grade short-term commitments until a portfolio better balanced as to maturity has been achieved.

The **ratio of capital funds to deposit liabilities** is also of importance in the formulation of investment portfolio policy. The smaller the ratio of capital funds to deposits, the less the ability to assume risk and the higher quality and shorter term the bonds purchased should be. In other words, the lower the margin of safety supplied by owned capital (including surplus, undivided profits, contingency reserves, and hidden reserves), the greater the safety that should be supplied by the quality of the bonds account.

With due consideration to the foregoing factors, a bank may seek the maximum income consistent with safety. But a bank's investment policy must always be predicated primarily on considerations of safety rather than on income.

Distribution of Investment Maturities.—The market price of a bond may change because of a change in the financial condition of the borrower or a change in the prevailing rates of interest. Banks largely avoid the first, or credit, risk by purchasing only bonds of such high quality that there is virtually no danger of the debtor failing to pay interest or principal as due. But they are vulnerable to the second risk, that is, a change in the level of interest rates, because they buy "money bonds," i.e., obligations of such high quality that they fluctuate in price directly with changes in going rates of interest, and because they may have to sell bonds long before their maturity because of losses of deposits, a demand for loans, or Federal Reserve policy changes. To minimize this risk, banks purchase bonds with maturities distributed among short-term, medium-term, and long-term. They strive to space their maturities on the basis of possible demands which may be made on them by their depositors or borrowers. Banks thus seek safety through a synchronized and conservative distribution of maturities, as well as through the purchase of the highest grades of securities.

The maturity distribution generally reflects to some extent expectations as to the outlook for interest rates. When interest rates are expected to firm, banks prefer near maturities to avoid the depreciation expected. They can then buy long-term bonds at the lower prices if and when these materialize. By the same token, banks prefer to buy longer-term bonds when interest rates are expected to decline. But excessive preoccupation with predictions as to the future of interest rates may lead to undue sacrifice of current income, which will produce poorer results over the long run than the choice of a suitable portfolio to begin with and a minimum of subsequent switching.

REAL ESTATE MORTGAGES AS BANK INVESTMENTS.—Although the experience of banks with real estate mortgage loans was not a happy one during the depression of the 30's, many institutions, especially smaller banks, are keenly interested in such lending. By following improved practices, such as periodic amortization of a mortgage loan by the borrower through instalment payments on account of principal, it is felt the losses of the past need not be repeated. Federal Housing Administration insurance of mortgages is attractive because, in the event of default, foreclosed properties can be turned in for government-guaranteed debentures. Furthermore, banks can now obtain advances against mortgages held, in case of need. The Federal Reserve banks may make special 4-month advances on the security of mortgages.

National banks may buy first mortgages not exceeding 60% of the appraised value of the security with a maturity up to 10 years, if at least 40% of the loan is to be amortized within the 10 years, and any mortgage insured by the F.H.A. The total amount invested in mortgages by a national bank may not exceed its unimpaired capital and surplus, or 60% of the time or savings deposits, whichever is the greater.

Conservative appraisals, periodic amortization, and F.H.A. insurance are counted upon to make mortgage lending far safer for banks than in the past.

Loans

IMPORTANCE OF LOANS.—The volume of bank loans declined sharply during 1929–1933 and remained at a low level during the later 1930's despite some recovery in prices and business activity. Total loans did not change much during World War II and their relative importance among bank earning assets continued to decline as the banks acquired more and more government securities. During the postwar boom, however, bank loans expanded substantially to new record levels and the outbreak of the Korean war led to further expansion.

Bank loans play a major role in the financing of industry, commerce, and agriculture, both new enterprises and old. They are particularly important to smaller and medium-sized businesses that do not have access to the security markets. They also provide a profitable outlet for the bank's funds, usually providing a materially higher rate of return than do investments.

METHODS OF BORROWING.—Ordinarily a business man becomes accustomed to borrow from a bank in one or two ways, and does not consider other methods. There are a number of loan plans with differing interest rates, terms, and security requirements. The cost of borrowing may be reduced by adjusting the method used to the circumstances of each case.

While, by and large, it is better for most borrowers to confine borrowing to one bank, larger concerns frequently prefer to do business with two or more banks. Also, the borrower may do business with more than one department of the bank to advantage. Thus, exports might be financed through discounting drafts with the foreign department, imports through the commercial credit department, and other operations through over-the-counter loans. The great variety of loans made by

Limitations on Loans by National Banks

Outline of limitations imposed by section 5200, U.S.R.S.

Type of Obligations to Which Limits Apply	Limits imposed by Section, i.e., Maximum Percentage of Bank's Unimpaired Capital and Surplus which may be Loaned to any one Borrower.
A. Obligations generally (whether secured or unsecured) The term "obligations" embraces: (a) The direct liability of maker or acceptor (including accommodation makers and acceptors) of paper discounted with, or evidencing loans by, the bank. (b) The liability of the indorser, drawer, or guarantor who obtains a loan from, or discounts paper with, or sells paper under his guaranty to, such association (does not include accommodation indorsers). (c) In the case of obligations of co-partnership or unincorporated association, the obligations of its several members. (d) In the case of obligations of a corporation, the the obligations of all subsidiaries in which the corporation owns a majority interest.	A. 10%
Exceptions to General 10% Limitation	
1. Drafts or bills of exchange drawn in good faith against actually existing values (Exception 1 embraces only two-name paper; it need not be secured).	1. No limit.
2. Commercial or Business Paper. (Exception 2 embraces only two-name paper which must (1) be given by a purchaser to a seller in payment for a commodity (2) bear the full recourse indorsement of an actual owner, and (3) be negotiable.)	2. No limit.
3. Obligations (including one-name paper) secured by goods or commodities in process of shipment. The term "in process of shipment" is construed to mean in the hands of a carrier.	3. No limit.
4. Obligations as indorser or guarantor of notes, other than commercial or business paper taken under Exception 2, having a maturity of not more than six months and owned by the party negotiating same.	4. 15%, in addition to general 10% limit (25% total).
5. Banker's acceptances of other banks of the kind described in section 13 of the Federal Reserve Act.	5. No limit.

FIG. 3a. Variety of Loans by Banks and Limitations on Amounts Loanable (Issued by Comptroller of the Currency)

6. Notes or drafts secured by shipping documents, warehouse receipts, or other such documents (similar in nature to shipping documents and warehouse receipts—not including trust receipts) transferring or securing title covering readily marketable non-perishable staples which must be insured if it is customary to insure such commodities. Obligations arising from the same transaction or secured upon the identical staples for more than 10 months do not fall within the exception.	In addition to general limit of 10% Additional 15% if security 115% " 5% " " 120% " 5% " " 125% " 5% " " 130% " 5% " " 135% " 5% " " 140% (50% total) (NOTE: The value of the security must be computed at "market value" and the required margin must be maintained at all times during the life of the loan.)
7. Notes and drafts secured by shipping documents or instruments transferring or securing title covering, or giving a lien on, livestock.	7. 15% if security 115% (25% total). (NOTE: The value of the security must be computed at "market value" and the required margin must be maintained at all times during the life of the loan.)
8. Notes secured by not less than a like amount of: (a) bonds or notes of the United States issued since April 24, 1917. (b) certificates of indebtedness of the United States. (c) treasury bills of the United States. (d) obligations fully guaranteed as to principal and interest by the United States.	8. 15% in addition to general 10% limit (25% total).
9. Loans to a national or a state bank or to a representative in charge of the business thereof, when approved by the Comptroller of the Currency.	9. No limit.
10. Obligations secured or covered by "unconditional" guaranties, commitments, or agreements to take over or to purchase for cash or its equivalent (within 60 days after demand) made by— (a) any Federal Reserve bank (b) the United States including any (1) department (2) bureau (3) commission (4) establishment (5) corporation wholly owned directly or indirectly by the United States.	10. No limit.
Comptroller's definition of term "unconditional" available upon request.	
SEC. 23A. Affiliates— Loans and credit to Repurchase agreements with Investments in, and obligations of Loans secured by obligations of Collateral to credit of any kind must be in form of stocks, bonds, debentures, or other such obligations having a market value 20 percent more than advances, except if issued by State or political subdivision value may be 10 percent. See exception to security in paragraphs 2 and 3 of act as quoted.	Aggregate of all to one affiliate limited to 10 percent of capital and surplus. Aggregate of all to all affiliates limited to 20 percent of capital and surplus. (See section 23A, paragraphs 2 and 3, page 2 for exceptions.)
SEC. 24A. Loans to or secured by stock of corporation owning banking house, together with investment in and/or stock and obligations of corporation owning premises.	Limited to amount of capital stock. (Unless Comptroller approves a greater amount.)

FIG. 3b. Variety of Loans by Banks and Limitations on Amounts Loanable (continued)

banks is shown in the listing on the accompanying form (Fig. 3) of the Comptroller of the Currency. This form also gives limitations on the amounts loanable in each case.

There are other methods of borrowing which are not listed on the Comptroller's form. The borrower often has to take the initiative in suggesting more economical and suitable borrowing methods, as the banker may not care to take the responsibility for doing so.

USES OF BANK LOANS.—Before 1920, bank loans were used chiefly to finance production and distribution. The financing of security distribution and ownership and of consumption has become of great importance in more recent years.

It was once thought economically unsound and socially unwise to use bank credit for other than a fairly narrow range of purposes identified with production or distribution. Loans, it was held, had to be short-term and self-liquidating to be sound. Maturities of more than 90 days were questioned, except for agricultural paper, and a maturity of more than one year was considered an improper use of bank credit. In contrast, banks lend nowadays for practically any puprpose so long as ultimate repayment is reasonably sure. They make capital loans on a term basis, that is, payable in instalments, with maturities as long as 10 years.

The classical function of a commercial bank loan was to meet seasonal and special working capital needs of a business. It was less expensive for a business man to borrow from the banks to finance an extra volume of business during the months of maximum activity than to expand his permanent capital to carry peak loads, even if he could raise the money on a long-term basis. But many concerns, especially larger ones, prefer to finance entirely on a long-term basis, while others now use banks to borrow for long-term, as well as short-term, needs.

ONE OR MORE BANKS?—A good banking connection is a valuable asset to every business. Some business men deliberately patronize more than one bank, with the idea that if one bank turns down an application for a loan the other will lend. In an emergency, however, a banker takes care of his good customers first. Customers who have split their banking business among several institutions may then find no one bank gives them preferred treatment. Furthermore, in such circumstances the borrower may find each lending bank trying to secure repayment of its loan on the theory that the other banks would carry the borrower through the period of stringency. Also, a bank may seek repayment of its loan for fear other banks may do so first.

Where a local bank is too small to meet the requirements of a larger borrower, the latter has no choice but to look for supplementary banking connections among larger institutions. Likewise, a large enterprise conducting business in more than one town usually finds it desirable to patronize banks in each community, to secure their goodwill and local banking services.

Even in these cases, however, a particularly close relationship with one bank is desirable so that in times of financial stress the bank's officers will have personal knowledge of the business and will feel obligated to take care of its credit needs.

TYPES OF BANK LOANS.—Bank credit may be extended through loans, interest on which is payable at maturity or at specified dates periodically. Only in rare instances is interest on loans paid in

advance. Credit may take the form of a **discount** of a note or draft brought in by the borrower as a maker or endorser. Discount is always deducted in advance from the face amount of the obligation.

The difference between a loan and discount is thus technical and of little practical significance. As the amount of the discount is calculated from the face amount of the obligation, the borrower actually pays a somewhat higher rate for the money borrowed. Custom decrees the use of the loan in certain types of transactions and the discount in others.

As regards maturity, loans may be either **demand** or **time.**

As to obligation of the parties, they may be **single-name** or **double-name.** Double-name paper may take the form of a guaranteed obligation, the discount of a receivable (note or draft), a bankers' acceptance or a trade acceptance.

Loans and discounts may be **secured** or **unsecured.** The security may be a pledge of any asset of value, ranging from marketable stocks and bonds and real estate and property to salary and wages in the case of consumer credit.

SECURED LOANS.—Although any asset may be pledged to insure repayment of a loan, the collateral ordinarily used may be grouped under the headings of commodities, real estate, securities and, in the case of consumer credit, salaries, wages, or consumer durable goods.

The suitability of **merchandise** or **commodities** for use as collateral for a bank loan depends upon several factors. The most important of these are standardization of grading, durability, marketability, and stability of demand. A bank can protect itself against adverse price fluctuations by requiring the borrower to hedge his holdings through the sale of future contracts on a commodity exchange. The grains, particularly wheat, rye, and corn, and cotton have proved to be exceptionally sound collateral for credit extension because they can be hedged, as well as because they meet the tests mentioned.

Bills of lading issued by common carriers are widely used as collateral for loans on commodities in transit, since it is required to secure possession of goods at the point of destination.

There are two types of bills of lading, the straight bill of lading and the order bill of lading. **A straight bill of lading** is **nonnegotiable,** and thus not acceptable for use as collateral. An **order bill of lading** is **negotiable.** When banks discount drafts secured by bills of lading, they require order bills of lading. If the draft is accompanied by a straight bill, the bank will receive the item for collection only and will not credit the customer's account until the draft has actually been collected.

Enactment of the Federal Bill of Lading Act and adoption of the Uniform Bill of Lading Act by a majority of the states have greatly improved the quality of bills of lading as collateral by safeguarding their legal status.

A trust receipt gives the bank title to goods after physical possession has been transferred to the borrower, who holds them as trustee for the lender. In practice, the trust receipt has proved of limited value in many cases because the lender must prove title to specific lots of goods against which a trust receipt has been issued. Other creditors may dispute the lender's assertion that specified goods are not the property of the debtor, and the burden of proof is on the lender to prove his claim and identify the goods beyond question. The safest thing for the lender to do would be to require the borrower to specially label each item, but

this is obviously impossible for goods in process and for commodities that cannot be labeled because of their character. Only where the goods bear serial numbers, as in the case of automobiles, watches, and typewriters, identification can be positive.

Despite these difficulties, trust receipts are used in financing imports where they have served fairly well. They give supplementary protection where credit would be advanced in any case because of the credit standing of the borrower. In domestic trade, field warehousing, described below, has tended to replace the use of trust receipts.

Warehouse receipts, particularly when issued by bonded warehouses, are far superior as collateral to trust receipts. The warehouse receipt acknowledges storage of the goods and sets forth the terms and conditions on which they will be delivered. The receipt may be **nonnegotiable,** that is, the goods will be delivered only to the particular person specified in the receipt, or **negotiable,** in which case the goods will be delivered to the bearer or a person designated by the holder of the receipt. Negotiable receipts pass freely from hand to hand, transferring title to the goods each time.

The states have passed legislation providing for supervision of public warehouses. The Federal Warehouse Act provides for the licensing of agricultural product warehouses which meet minimum standards of financial responsibility and physical safety. The bond deposited by a warehouse protects the lender against theft of the goods.

A warehouse receipt may or may not specify the quality of the goods stored. It generally states the quantity, but this is not absolutely necessary. At best, warehouse receipts specify both quality and quantity, as do cotton and grain warehouse receipts which have had a splendid collateral record.

By means of **field warehouse loans,** banks may be given a lien on commodities or merchandise stored on the premises of the borrower with better protection than a trust receipt accords if an outside warehouseman controls the storage space. Warehouse service organizations have worked out methods for the segregation, storage, inspection, and protection of pledged goods, and have demonstrated that they can protect the interests of the lender in such loans. The field warehousing organization receives a fee for its services in supervising and operating the segregated storage space for the pledged goods.

Accounts receivable are sometimes pledged as specific security for credit, but this is not common in borrowing from a bank. Banks prefer to make loans on the basis of the general credit of the borrower, in which his accounts receivable receive due consideration. Factoring and sales finance companies require specific assignment of receivables as security for their advances.

Mortgages on real estate may be taken as security for commercial loans, but only as a last resort and rarely. There is too much detail involved in tax and title searches, execution of instruments, recording, appraisal, and insurance. Banks buy mortgages as long-term investments but do not like to go to so much trouble in connection with a short-term commercial loan.

SECURITY LOANS.—Loans secured by stocks and bonds constitute the most important type of secured loans. The proceeds of security loans may be used for any business or personal purpose, but they are

chiefly incurred for the purpose of carrying securities for distribution or profit.

Most security loans are made against listed securities, so that changes in the value of the collateral may be readily noted and the necessary action taken to protect the bank against loss. Formerly, a safe margin of collateral value over the amount of a security loan varied from 5 to 10% on government securities to 30 to 50% on unlisted securities. Since 1934, margin requirements have been set by the Board of Governors of the Federal Reserve System for listed securities, to regulate the volume of credit granted for this purpose and speculative activity on the security markets.

Call loans are payable on demand of either party. Call loans are automatically renewed by mutual assent if notice to the contrary is not given by either party.

SINGLE-NAME VS. TWO-NAME PAPER.—Under American business practice, most paper acquired by banks is single-name paper. Most manufacturers sell on open-book account, and when they need money they make out their own notes and turn them over to the banks. This differs from the practice of other countries where manufacturers commonly draw drafts to accompany each shipment. When the draft has been accepted, the manufacturer endorses it and discounts it, as two-name paper, at his bank.

The wider use of **domestic trade acceptances** has been advocated in the United States, but they have made little progress in displacing the historic open-book account in financing manufacturers' sales in most industries. In American practice, the domestic trade acceptance has been used at times to secure formal acknowledgment of an overdue open-book account, or as a collection weapon on an overdue account on the assumption that the buyer will be more likely to pay an obligation presented through his local bank. This background adds to the resistance to its wider use.

ACCOMMODATION PAPER.—One kind of two-name paper which is poorer than conventional single-name paper is the so-called **accommodation bill or note** for which the acceptor or maker has received no consideration, but on which he has lent his name and credit to accommodate the drawer, payee, or holder. The accommodating party is usually not identified with the business of the borrower. He is liable to the holder of the paper precisely as if there were a good consideration. But the party he has accommodated is obligated to take up the paper, or to provide the accommodation acceptor, maker or endorser with funds for doing it, together with expenses legitimately incurred. Litigation sometimes results, however, that may adversely affect the holder of the paper before it is paid.

BANKER'S ACCEPTANCES.—Another method of borrowing is through the use of banker's acceptances. These are drafts drawn upon a bank and accepted by it. Where banks agree to accept such drafts, under arrangements made in advance, they charge a fee for the service, usually ⅛ or ¼ of 1%. After they have been accepted, these drafts find a ready market on a very low yield basis, since they are then outright obligations of the accepting banks. Naturally, banks will accept

drafts only if they feel assured that funds to pay off the drafts will be provided them in advance of the maturities of the acceptances. Such assurance may result from the high credit standing of the customer or the fact that bills of lading or warehouse receipts are attached to the drafts, giving title to marketable goods that could be taken over and sold in the event of default.

Banker's acceptances are widely used in financing foreign trade. Their use in domestic trade has been quite limited, but wider employment of the device has been urged from time to time. The suitability of this financing method should be investigated by concerns that sell staple merchandise to a large number of customers, especially where the commodities sold are to be stored in warehouse for considerable periods of time.

CREDIT ANALYSIS.—Determination of the amount of credit which can be safely extended to a business enterprise has become a standardized procedure. **Statement analysis** is at the base of all credit analysis. Comparison of the **dynamic** ratios (those related to sales) and the **static** ratios (those related to capital) of the applicant with similar companies in the same line and with his own ratios in previous years shows trends and margins of safety. Adequacy of net working capital, sufficiency of quick assets, the size of the inventories and their rate of turnover, the volume of accounts receivable, rate of return realized on invested capital, and other pertinent facts can be gleaned from a study of financial statements.

Further salient information is derived from answers to supplementary questions on points such as the following:

1. Status of the inventory—finished, semifinished, and unfinished; stale, obsolete, or shopworn goods, etc.
2. Method of inventory valuation.
3. Analysis of accounts receivable—average age of the accounts, total of overdue accounts, provision for bad debts, etc.

Bankers prefer audited statements prepared by independent certified public accountants. Although not an absolute requirement, bankers place so much more reliance upon audited statements that it is advisable to furnish them if at all possible. In addition to balance sheets and income statements, bank credit men like to see budgets of previous years and comparisons of actual with estimated performance. They also like applicants to submit estimated balance sheets, income statements, cash budgets, and sales forecasts for the coming year.

Credit files are maintained by banks on each borrowing customer, and on many other business enterprises with which the banks' customers do business from time to time. The credit file is the repository of the credit information collected about each particular "name." The **financial statement section of the credit file** contains the statements discussed above. The **information section** contains reports of interviews by investigators, credit agency reports, trade reports, summaries of the experience of other banks with the subject and other material gathered by the bank's credit investigators.

The **inquiry section** lists names of those inquiring about the subject of the folder, the credit information given, and the name of the clerk giving that information. Much may be learned about an enterprise by the character of the inquiries made.

The credit file contains details of loans made to the subject in the past and the rates charged. It contains a summary of borrowing limits, guarantors or endorsers required, and similar information.

The **credit department** collects, collates, files, and keeps up to date the information contained in the credit file. It is responsible for the analysis of financial statements, the calculation of ratios, and their interpretation. It is also responsible for the release of credit information to members of the bank's staff and outsiders. Credit files generally contain confidential information which should not get into unauthorized hands. It is the job of the credit department to see that this does not happen. Business men can usually rest assured that the information they supply the bank will be carefully guarded.

The credit department must be careful in giving out credit information, as it could be liable both to the party to whom the information is given and the one about whom the information is given for resulting damage. Such liability for credit information divulged compels bank credit men to be extremely cautious in responding to credit inquiries. Business men who request credit information should realize that bank credit men perforce "damn with faint praise." Because of the liability involved, it is unusual for a bank credit man to give an unequivocal statement, good or bad, regarding the credit standing of an individual or enterprise. A business man must often read between the lines to get the full benefit of a credit report given him by a bank.

THE LINE OF CREDIT.—On the basis of the credit analysis, a line of credit is established for customers who desire to borrow. This line of credit is simply a statement by the bank that until further notice it is prepared to lend up to the stated maximum amount, on certain terms and conditions, to the prospective borrower. It is a declaration of intent and not an agreement, **and thus may be cancelled or amended by the bank at any time.**

Usually considerable detail is specified in the line of credit regarding terms and conditions of the loans. Amounts which the bank is ready to lend the customer through its foreign department, over-the-counter, on security collateral, and so on may be set forth at length. Varying margins, maturities, and rates on different types of borrowing are usually indicated.

After a line of credit has been passed by the directors, it becomes a guide governing borrowing relations between the bank and the customer. In effect, it is a way of complying with the legal requirement that all loans must be approved by the directors. Officers of the bank can then authorize individual loans under the line of credit as requested by the customer without further action by the board of directors.

A line of credit, once established, is a real protection for the borrower since a banker does not reduce or cancel a line of credit without substantial cause. Bankers who treat lines of credit lightly will quickly lose borrowers. Borrowers agree to notify the bank of any material change in their credit status, and the bank watches new financial statements, industrial and general economic conditions so that changes in credit lines can be made as circumstances require.

Banks may require a minimum deposit balance of a specified percentage, varying from 7 to 20, of the line of credit, but such a requirement is often waived where it is in effect. It is not necessary to utilize

the full amount of a line of credit; in fact, an ample unused margin is considered a sign of financial strength. But where a customer wants to embody a line of credit in a formal agreement, as sometimes happens, a small fee is charged on the unused portion for such a "stand-by" contract.

TERM LOANS.—Since the middle 1930's, banks have made capital loans to business for intermediate terms of 2 to 10 years. Such loans contain annual or semiannual amortization provisions which either extinguish the loan by maturity or at least reduce it to, say, 25% of the original advance. Where only part of the loan is amortized during its life, it is said to have a **balloon maturity.**

Term loans are favored by some banks over the purchase of corporate bonds, since the lending bank negotiates the terms of the loan itself and maintains direct contact with the borrower, which is not the case with investment in bonds. Term loans usually carry a moderately higher interest rate than a short-term credit.

Consumer Credit Agencies

FINANCING THE CONSUMER.—Bank credit is used directly, and even more widely indirectly through specialized agencies that borrow from banks, in financing consumers. Formerly, such loans were not regarded as suitable for banks. In recent years, however, banks have turned more and more to direct extension of loans to consumers in competition with specialized lending agencies.

Because of the earlier reluctance of commercial banks to enter this field, specialized agencies developed on an extensive scale in response to the insistent demand on the part of the public for such credit. Each class of these agencies developed lending methods peculiar to itself. As these methods vary considerably, they will be considered separately.

SALES FINANCE COMPANIES.— Originally instalment sales were financed directly by the seller. While **instalment houses** are still found, particularly in retailing cheaper furniture, sales finance companies which limit their activities to the financing of time sales now dominate the field. These companies, which attained large size with the development of automobile financing, have expanded their operations into the financing of radios, refrigerators, washing machines, and other household utilities.

The **conditional sale** (or lease in certain states), under which title does not pass to the buyer until final payment has been made, is the basis of sales finance company operation. If payments are not made when due, the finance company simply repossesses its own property. Most states have laws providing for the sale of the repossessed property at auction, and payment of the proceeds, after satisfaction of the debt and all costs, to the delinquent buyer. These laws, because of loopholes and lax enforcement, have proved of limited importance to financially embarrassed purchasers.

Except in a few states which have enacted special sales finance legislation, there is no legal limit on the rate of interest which can be charged for financing the sale of merchandise on the instalment plan. Usury statutes apply only to interest charged for the loan or use of money,

and merchandise rather than money is involved in these transactions. Relatively high rates of interest are charged, in part because of high operating expense in such financing.

Sales finance companies operate on either a **recourse** or a **nonrecourse** basis. Under the recourse method, repossessed goods are turned back to the dealer, who reimburses the finance company on a previously arranged basis. Refinements of this method have been evolved, but in essence, it means that the finance company does not assume the credit risk. This method is generally used by large finance companies. Smaller companies nearly all use, for competitive reasons, the nonrecourse method, under which they acquire instalment notes unconditionally. In case of default, the finance companies assume the responsibility of disposing of repossessed merchandise themselves. The finance company must then rely on the credit of the buyer and the value of the merchandise involved for its protection, rather than on the financial standing of the dealer as under the recourse method.

INDUSTRIAL BANKING.—The term industrial banking is applied to the lending of money on **co-maker** notes. Starting in Norfolk, Virginia, in 1910, Arthur Morris developed a copyrighted note on which the borrower secured the signatures of two or more persons as co-makers. Accommodation endorsers thus became co-makers with consequent change in their legal and financial responsibilities. Such loans are used both for personal and small business purposes. In this method of lending, investigation fees and discount are deducted in advance. Penalty fees are charged for late payments and other contract infractions specified.

Industrial banks have come more and more to resemble ordinary commercial banks, employing conventional lending methods as well as their characteristic type of loan.

PERSONAL LOAN DEPARTMENTS OF BANKS.—Commercial banks have made small loans right along, many of which were really consumer loans although not recognized as such. In more recent years, a number of commercial banks have opened separate departments for making small loans, largely under a plan involving one or two co-makers. Many institutions have expanded the operation of these departments to include other phases of consumer credit such as sales financing, personal loans without co-makers, housing rehabilitation, insurance policy loans, etc. Banks with small loan departments are usually prepared to make consumer loans on practically any basis used by any other agency, except pawnbrokers, offering keen competition to other lending agencies in this field.

PERSONAL FINANCE COMPANIES.—These companies operate under the **Uniform Small Loan Act** drawn up by the Russell Sage Foundation and adopted, with various modifications, in some forty states. Designed to drive loan sharks out of business by furnishing small loans at reasonable cost, they are closely regulated. While personal finance companies are exempted under the usury laws, the rates which they may charge and the amounts they may lend are limited in the Small Loan laws. Copies of contracts must be given the borrower, and charges are made on a flat basis on the unpaid balance due and collected each month, so that there can be no misunderstanding on the part of the

borrower as to what he is paying or what he should pay for the loan. Fees and extra charges of any character are expressly forbidden, as a rule.

The all-inclusive charge varies among the states from 3½% per month on the unpaid balance to as low as 1% on the amount in excess of $200. While these rates look high compared with the rates on commercial bank loans, they actually are low compared with "loan shark" rates of 520 to 1040% per annum which would be the alternative for most of their borrowers. Because of the very high costs per dollar of lending money in small amounts, these rates are not to be compared with interest rates charged on loans of large sums.

These are character loans, co-makers or collateral ordinarily not being required. The borrower and his wife (if married) are required to sign the note. In addition, a chattel mortgage may be taken on the household furniture, but it is not filed and is of doubtful legal value. Personal loan companies rarely are willing to take the responsibility for breaking up a home by seizing pledged furniture.

Operated properly, these agencies have a real social function, making relatively small sums available to necessitous borrowers who would otherwise probably borrow from rapacious illegal lenders.

CREDIT UNIONS.—Since passage of the Federal Credit Union Act in 1934, the number of credit unions has increased rapidly. They have become an important source of **cooperative credit** for members. Members pay dues on a regular basis, and sums thus collected are loaned to members only at varying rates, ordinarily around 10% per annum. Signatures of other members on a borrower's note are required for the protection of the credit union.

SECTION 14

TRUSTS AND AGENCIES

CONTENTS

PAGE

Origin and Nature of Corporate Fiduciaries

Establishment and growth of fiduciaries 609
Definition of fiduciary 609
Trust companies and banks 609
Trust definitions 610
Corporate vs. personal trust business. 610
Evolution of corporate fiduciaries .. 610
Characteristics of corporate fiduciaries 611
Trust department management 612

The Personal Trust Business

Work of the personal trust department 612
Functions of executor 613
Probate 613
Preparation of inventory 613
Administration 613
Final settlement 614
Work of an administrator 614
Guardian of a minor 615
Guardian of an incompetent 616
Assignee 616

Personal Trusts

Legal concept of a trust 616
Creation of trusts 616
Creating a trust by agreement or deed of trust 616
Trusts under wills 617
Living trusts 617
Retirement trusts 617
Life insurance trusts 617
Trusts in contemplation of death .. 618
Pension and profit-sharing trusts .. 618
Revocable and irrevocable trusts 618
Special types of personal trusts 619
Sheltering trusts 619
Spendthrift trusts 619
Trusts for incompetent persons 619
Charitable trusts 619
Trusts for emergencies 619
Rewarding trusts 620
Duration of trusts 620

Personal Trust Operation

Collection of trust assets 620
Relations with the beneficiary 620

PAGE

Care of trust assets 621
Accumulation of income 621

Trust Instrument Provisions

Nature of the provisions 622
Provisions affecting income and principal payments 622
Investment provisions 622
Investment duties of a trustee 623
Resignation of a trustee 624
Termination of a trust 624

Management of Trust Investments

Functions of an officers' investment committee 624
The reviewing department 625
The securities analysis department .. 625
Other departments 626

Liabilities of a Fiduciary

Accountability of the trustee 626
Liability of a trustee dealing with itself 627
Breaches of trust 627

Personal Agency Functions

Range of functions 627
Services provided by trust companies 628
Agent or depositary for individual executors, administrators, and trustees 628
Custodial accounts for individuals.. 628
Escrow accounts 629

Personal Trust Fees

Setting fees and commissions 629
Typical fees 629
Fees and commissions to testamentary and inter vivos trustees 629
Fees and commissions to executors, administrators, guardians, and committees for incompetents 630
Fees and commissions on custodian accounts 630
Fees for investment supervisory services 631

PAGE

Fiduciary Functions for Corporations

Banks and trust companies as fiduciaries 631
Trustee for bondholders under indenture 632
Individual co-trustee for corporate bonds 632
Receiver or trustee 632

PAGE

Agency Functions for Corporations

Fiscal agent 633
Transfer agent 633
Registrar 633
Subscription agent 634
Depositary under voting trust agreements 634
Agent for corporations in process of reorganization, recapitalization, consolidation, or merger 634

SECTION 14

TRUSTS AND AGENCIES

Origin and Nature of Corporate Fiduciaries

ESTABLISHMENT AND GROWTH OF FIDUCIARIES.—Accumulation of wealth in the hands of individuals and the desire on their part to conserve it for their own and their heirs' benefit were the basic causes for the establishment of corporate fiduciaries and their great growth and development in the United States. Until the middle of the nineteenth century, most fortunes represented primarily ownership of land. There was little reason for specialized institutions to assist individuals in the conservation of estates either during their lifetime or after their deaths. The industrial revolution, the development of railroad transportation and industrial consolidations brought about aggregations of wealth consisting largely of securities, the management of which called for specialized knowledge and judgment. The corporations organized to provide such services are known as corporate fiduciaries.

Definition of Fiduciary.—A fiduciary is defined as one who acts in a capacity of trust and confidence for another. No simple definition is sufficiently comprehensive to cover all instances in which an individual or corporate entity acts in a fiduciary capacity. The term is derived from the civil law. It has been held to apply to all persons, individual or corporate, who occupy a position of peculiar confidence towards others; and it implies integrity and fidelity of the person trusted, and it contemplates good faith rather than legal obligation as the dominant basis for transactions.

The term covers a wide variety of activities and individuals, including partners when acting one for the other; directors of corporations; public officials; attorneys at law and in fact when performing services for a client or principal; trustees appointed to their position either by will or agreement; executors of estates; receivers in bankruptcy or litigation; and others serving in similar responsible capacities.

At all times the fiduciary is acting for another party. The relationship, as a matter of business and law, is that one party places confidence in another party, the fiduciary, to act in good faith and for his best interest. Also the fiduciary is expected to act in the same way as a prudent man would act in the conduct of his own affairs.

TRUST COMPANIES AND BANKS.—Trust companies and banks act as trustee or agent for the real and personal property of both living and deceased persons, or for the securities of issuing corporations. Such activities are classified as trust business.

Trust Definitions.—For a clear understanding of the nature and provisions of the various kinds of trusts set up the following terms require definition:

1. **Trust business.** The trust business of corporate fiduciaries is defined by the American Bankers Association in its Statement of Principles as follows:

It is the business of settling estates, administering trusts and performing agencies in all appropriate cases for individuals, partnerships, associations, business corporations, and public, social, educational, recreational and charitable institutions and units of government.

2. **Trust.** A trust involves the passing of title to property from an owner who creates the trust, the creator **cestui que trust,** to a trustee, with the stipulation that the property be held for the benefit of another. The beneficiary may be the cestui que trust, or, as is usually the case, another person or persons.

3. **Agent.** An agent is one who is employed by another party, known as the principal, to represent and act for the latter in his contractual or business dealings with third parties. (Tiffany, Handbook of the Law of Principal and Agent.) The primary difference between an agent and a trustee is that an agent does not take title to the property involved and usually transacts business under the name of the principal, while the trustee takes legal, but not equitable, title to the property and does business in his own name.

CORPORATE VS. PERSONAL TRUST BUSINESS.—Trust business in the larger trust companies has, for reasons of efficiency, been divided into two major divisions usually described as the **personal trust department** and the **corporate trust department.** The handling of accounts in each of these categories has become highly specialized. Personal trust business is principally confined to settling estates of deceased persons, and the care of the assets included in trust estates. Corporate trust business, on the other hand, comprises primarily the functions of acting as trustee for corporate obligations, fiscal agent for stocks and bonds, and depositary for securities under deposit agreements. Though both types of trust business are usually under the authority of one senior trust officer, for practical purposes personal and corporate trust activities are kept separate from each other and are carried on by personnel who specialize in the different fields.

Evolution of Corporate Fiduciaries.—The trust business had its roots in the field of insurance. The first corporations to undertake trust functions were the Massachusetts Hospital Life Insurance Co. of Boston, incorporated in 1818, and the Farmers Fire Insurance and Loan Co., which was authorized to engage in trust business by the New York legislature in 1822. A number of other corporations were founded about the same period to grant insurance and act in a trust capacity.

In time these corporations found the trust business to be logically allied to banking rather than to the writing of insurance. They either relinquished the insurance part of their business for banking, or dropped their trust activities to engage exclusively in insurance.

After 1850, many state-chartered banks applied to their legislatures for amendments to their charters which would give them the power to act as trustee and engage in other fiduciary activities. In later years,

it became no longer necessary for state banks to obtain special charters or amendments to engage in trust business. These powers are now conferred by trust company and banking statutes of the various states.

National banks were not permitted to act as fiduciaries until 1918, when an amendment to the Federal Reserve Act authorized national banks to apply for and receive permission from the Federal Reserve Board to engage in all trust functions exercised by state banks and trust companies in the state in which the national bank is located. The same statute first authorized trust companies to join the Federal Reserve System. Although national banks thus obtained the statutory right to act as fiduciaries, it was not practical for them to do so at first because their charters limited their corporate existence to fifty years, a period of time much shorter than the life of many trusts. National banks were granted perpetual existence in the Banking Act of 1927, which removed the last obstacle to their full participation in trust activities.

Characteristics of Corporate Fiduciaries.—Corporate fiduciaries are characterized by the following features:

1. **Perpetual existence.** The institutional fiduciary offers continuous administration, which an individual cannot do. It has perpetual existence and a permanent place of business with its organization, it provides assurance against interruption of the performance of the duties of trusteeship due to absence, disability, or death, as could happen with an individual trustee. When an individual trustee dies or resigns before the termination of a trust, the appointment of a successor trustee may involve expensive legal proceedings, including an accounting by the previous trustee or his estate, the cost of which is a charge against the principal of the trust fund.

2. **Financial responsibility.** Corporate fiduciaries possess substantial resources. Their operations are constantly under supervision by their own accounting department, by independent auditors engaged by the board of directors, and by government authorities.

Further protection is accorded by the fact that assets held in trust are segregated from the assets of the corporate fiduciary. Losses due to fraud, laxity, or failure to live up to the requirements of the law or the trust instrument must be made good to beneficiaries out of the capital and surplus of the corporation.

3. **Legal status.** As a corporation, a trust company can sue and be sued in its own name as an entity. Trust companies may also engage in fiduciary activities like any natural person, which other corporations cannot do.

A trust company incorporated in New York, for example, is also subject to restrictions imposed by the Surrogate's Court Act and the Decedents' Estate Act in its handling of trusts and estates of deceased persons, while trust activities for living persons are affected by the personal property laws and the law of agency.

In keeping with legal requirements, separate account books and procedures for trust business are maintained. Assets held in trust are completely segregated from trust assets in the banking departments. Assets held in trust do not appear in the statement of condition of a bank or trust company.

The trust department or departments may use the facilities of the banking departments to effect purchases and sales of securities, and

deposit accounts may be opened in the same institution for trusts or beneficiaries to receive and hold income from trust assets. Idle funds of trust accounts awaiting reinvestment or distribution may be deposited in a special bank account in the institution. But the laws of New York and some other states require the bank to set aside securities, usually federal or state obligations, as collateral for the protection of such deposits.

TRUST DEPARTMENT MANAGEMENT.—Direction of the trust department of a trust company or a bank rests ultimately in the board of directors or trustees of the institution. Under both national and state laws, the board of directors or trustees must set up a separate department completely divorced from the institution's banking activities. Direct supervision of the trust department in larger institutions is usually vested in a senior vice-president or trust officer who is responsible only to the president and the board, and who is frequently a member of the board.

The Personal Trust Business

WORK OF THE PERSONAL TRUST DEPARTMENT.—The personal trust business includes the performance of trust and agency functions for individuals. Trust functions include the settling of estates of deceased individuals and the care and management of trusts created by either deceased or living persons. The major offices which a trust company assumes in this branch of the business are:

1. Executor of estates under a last will and testament of a deceased person.
2. Administrator of decedents' estates as,
   a. Administrator cum testamento annexo, that is, with will attached. (Usually this office is designated as Administrator C.T.A.)
   b. Administrator by appointment of the court of jurisdiction.
   c. Temporary administrator.
   d. Ancillary administrator.
3. Guardian of the estate of a minor, either through appointment in the will of a deceased person or by the court.
4. Guardian of the estate of an incompetent person who has been so adjudged by the court.
5. Testamentary trustee, that is, trustee by appointment in the last will and testament of a deceased person.
6. Inter vivos trustee, through deed or agreement with a living person. Such trusts are known as living trusts.

Agency functions include:

1. Agent for trustees, executors, and administrators in handling the mechanical phase of their duties.
2. Custodial services such as safekeeper of assets, including the handling of purchases and sales of securities at the direction of the owner. The trust company may collect interest, dividends, and principal and render investment advice in this connection, as well as seek to guard the interests of the owner with respect to changes in the financial structure of issuers.
3. Escrow services, which involve safekeeping something of value that is to be delivered to another party upon the happening of some contingency.

FUNCTIONS OF EXECUTOR.—An executor is an individual or corporation appointed by a testator in his or her lifetime to carry into effect his or her last will and testament upon his or her decease, and to dispose of the estate according to the will's tenor. (See Kellogg v. White, 103 Misc. 167, mod. 186 AD. 911.) The primary function of the executor is to see that the terms of the will are carried out.

The duties of an executor are usually temporary. He is to collect all the assets of the estate, pay debts and taxes of the decedent and charges that arise from winding up the estate, and then distribute the remainder to the residuary legatees named in the instrument. Normally an executor does not invest funds of the estate, save in instances where such powers are granted by the testator to the executor during the period of settling the estate. An executor may invest the funds of the estate also if the interested parties consent to his doing so. If such additional powers are granted the executor, he might then be termed a temporary trustee.

In general, an executor's activities are confined to the following duties, as described by the Chemical Bank and Trust Co. in a brochure for the information of its customers:

Probate.—This duty involves locating the will and arranging with counsel for probate of the document, or the official proving of the will in the surrogate's court or whatever court has jurisdiction in these matters in the state where the will is to be probated. Upon probate, the will is certified by the court to be the decedent's last will and testament, and the executor is provided with letters testamentary, which empower him to act under the terms of the will and the laws of the state controlling the functions and duties of executors.

Preparation of Inventory.—This step includes:

1. Collecting data on the assets and liabilities of the estate from the decedent's records.
2. Opening the decedent's safe deposit box and listing its contents.
3. Attending to appraisal of jewelry, household furniture, and other personal effects of the deceased.
4. Preparing an inventory of all assets, including interests, if any, in close corporations, partnerships, and other private ventures.
5. Tracing insurance policies and ascertaining beneficiaries and the amounts of insurance collectible.

Administration.—The manifold administrative duties of an executor after he has ascertained the value and condition of the decedent's estate, to be performed faithfully in keeping with the terms of the will and the various state and federal laws controlling his actions, include:

1. Examining financial statements and other data and preparing reports and comparative figures to appraise interests in close corporations, partnerships, and other private businesses.
2. Paying debts, funeral expenses, and administration expenses.
3. Analyzing investments of the estate and formulating a plan of liquidation to raise cash for taxes, administration costs, and other expenses.
4. Furnishing counsel with a complete statement of assets and a complete list of debts and expenses in order to prepare estate and inheritance tax returns.
5. Attending to audit and adjustment of estate and inheritance tax returns.

6. Attending to partial distribution of the estate by payments of specific legacies and bequests contained in the will.
7. Attending to the preparation and filing of income tax returns for the decedent and the estate, as well as the audit of such tax returns.
8. Maintenance of records of all transactions of the executor with respect to the estate, to facilitate preparation of an accounting to the court and the heirs on completion of the executor's job.

Final Settlement.—Final settlement of an estate requires arrangement with counsel to submit to the court a complete account of the executor in respect to the management and winding up of the estate, and approval of such accounting either by judicial decree or by receipt and release from the heirs. Payments are then made to the heirs in accordance with the decree and the terms of the will, and proper proof of payment is then filed with the court. Upon filing of the final accounting and proof of payment, the executor is relieved of further responsibility and discharged by the court.

WORK OF AN ADMINISTRATOR.—An administrator performs the same functions as an executor, which are to wind up the estate of a deceased person (except in the case of a temporary administrator). Unlike an executor, however, an administrator is appointed by the court having jurisdiction over decedents' estates, rather than by will of the deceased.

The **ordinary administrator** is appointed by the court to wind up the estate of a person who has died intestate—that is, without making a will. Usually the person with the greatest interest in the proceeds of the estate is named by the court to act as administrator, if in the discretion of the court that person is considered to be competent to act in such capacity. However, if the party with the greatest interest is unable or unfitted to act, or a number of persons having equal interests are unable to agree on who is to administer the estate, the court will usually appoint an outside and disinterested individual or trust company to assume the care and duty of settling the estate under the laws governing estates of intestates.

An administrator cum testamento annexo, also known as administrator C.T.A., is appointed where the deceased person has made a will but has either failed to name an executor, or the executor so named has refused to or cannot act. The court then names the party who is to administer the estate, but the administrator, in this instance, instead of winding up and distributing the estate according to the dictates of the law governing estates of intestates, is guided by the testator's desires as expressed in the will.

An **administrator de bonis non,** designated also as administrator D.B.N., is appointed to succeed a previously appointed administrator who has died before completion of his duties.

An **ancillary administrator** is appointed to act for the estate of a decedent who was resident in another state, the assets of whose estate in whole or part are situated in the state where the court appointing the ancillary administrator has jurisdiction.

A **temporary administrator** takes charge of a decedent's estate where, for some reason or other, an executor cannot immediately assume direction or a permanent administrator cannot be appointed immediately.

Almost invariably this situation arises from litigations, such as a will contest between heirs dissatisfied with the terms of the will or the entry of claims to the estate by persons not named in the will. Litigation may arise also because the will itself is attacked as fraudulent, or as having been executed under conditions which would invalidate it in the eyes of the law. Under these circumstances, the executor named cannot perform his duties, for the will cannot be probated until the litigation has been settled. A temporary administrator may be appointed also because of a refusal of the heirs, with good cause, to accept the services of the party named as executor, the minority of the executor, a protracted disagreement among heirs of an intestate as to who will assume the duties of administrator, etc.

Temporary administrators have very few independent powers, in contrast to executors or other types of administrators. Their duties consist primarily of assembling the assets of the estate. Further activities to settle the estate are usually held in abeyance until the factors preventing permanent administration have been cured. Sales of property or other assets, payment of debts, and other such acts can be effected by a temporary administrator only by special court order. It has been said that the office of temporary administrator is similar to that of a receiver in bankruptcy or litigation, in that he acts merely as an agent of the court.

Guardian of a Minor.—A guardian is appointed for a minor either in the will of the deceased or by the court. Usually the guardian is the surviving parent of the minor, a close relative or a close friend of the parents. Under some wills, or in some cases where the guardian named in the will or the surviving parent or close relative is not competent to handle the minor's property, a trust company will be appointed guardian of the minor's estate, while an individual will be appointed guardian of the minor's person. A guardian is needed to care for the interests of the minor since under the law a minor is not in a position to manage his own affairs and cannot make a contract. The guardian collects the assets of a minor as speedily as possible. The bank then sets up an accounting for principal and the income from the assets. This it does for its own convenience, as in the estate of a minor the courts do not distinguish between principal and income, all the property belonging to the minor and there being no remaindermen as in a trust account.

The bank requests and receives from the courts a maintenance order for the disbursement of funds for the minor's subsistence and education. These funds are paid either to the guardian of the minor's person or to the minor himself if he is old enough to use the money for the purpose for which it is remitted. In rare instances the bank may be appointed the guardian of the minor's person as well as of his property, in which case the bank would pay the minor's bills and give him pocket money. A bank is appointed to this position where the minor at the time is close to his 21st birthday. Investment of the assets of a minor in New York State and in many other states is limited to legal investment. If there is no instrument permitting the guardian to do so, a court order may have to be obtained to sell particular property or assets of the minor. Occasionally the guardian is given a blanket order to make sales at any time in his discretion, subject to considerations of prudence.

Guardian of an Incompetent.—The guardian of an incompetent acts in the same manner as the guardian of a minor. He is to apply the property to the well-being of the incompetent. However, if an incompetent has persons dependent upon him, the court will permit application of a part of the incompetent's estate to these dependents.

Assignee.—Where a trust company or other fiduciary receives title to the assets of a debtor and holds them for the benefit of the latter's creditors, it functions as assignee. This assignment, like that of receiver which it resembles, is rarely taken by trust companies because of the need for highly specialized business management that is involved.

Personal Trusts

LEGAL CONCEPT OF A TRUST.—A trust is a fiduciary relationship with respect to property, subjecting the party by whom the property is held to equitable duties to deal with the property for the benefit of another person, which relationship arises as the result of a manifestation of an intention to create it. (American Law Institute, Restatement of Trusts.) A trust is created by a transfer of property, either by agreement or deed, or by will, in which said property passes to another as trustee. (Scott, on Trusts.)

Actual legal title is given to property by one party to another when a trust is created. The trustee holds title for the benefit of a third party, the beneficiary. Where title is passed by will, the creator of the trust is known as the **testator**; if title is passed by a living person the creator is known as the settlor, grantor, donor, or trustor. The term used to designate the maker of a living trust is settlor.

CREATION OF TRUSTS.—A trust may be created to provide income for the support of dependents, the education of children, the maintenance of charitable or educational institutions, or some other desired object. Trusts may be either express or implied. An **express trust** is one created by deed or agreement between the parties, by a declaration or a will. In creating an express trust, the parties involved know and intend at all times that a trust shall arise from their actions. When created by a deed or declaration, it is called a **voluntary, living,** or **inter vivos trust,** as distinguished from a **testamentary trust,** which is established by will. An **implied trust** is a trust arising by implication from the acts or situation of the parties or from the wording of an instrument, rather than from any direct or expressed declaration to create a trust.

Creating a Trust by Agreement or Deed of Trust.—Any competent person may set up a trust under a simple agreement directing how the funds shall be invested, to whom the income from investments shall be paid, and when and to whom the principal shall be paid out upon the termination of the trust. The person named to receive the principal when the trust terminates is known as the remainderman.

When a person has decided upon the amount of a trust he wishes to establish, its terms and the identity of the trustee, he should have his attorney prepare an agreement of trust setting forth clearly the settlor's intentions and the necessary provisions for putting them into effect. This should preferably be done in conference with the trustee, to assure

that the trust will be one the trustee is willing to accept and administer. The trust agreement is signed in duplicate by both the settlor of the trust and the trustee, each of whom retains one of the duplicate originals. The trust is then in existence, and thenceforth it is the duty of the trustee to carry out faithfully the terms of the agreement.

Trusts Under Wills.—In the creation of a testamentary trust, as of a living trust, it is imperative that a competent and experienced attorney be consulted to advise on the best manner to put the creator's desires into effect. The party to be named trustee should be consulted to insure that he will be willing to act in this capacity under the terms of the will creating the trust, for there may be difficulty in obtaining a substitute if the trustee named should refuse to accept the assignment, as well as added legal expense in applying to the court for a substitute.

LIVING TRUSTS.—More important types of trusts that, by their nature, can be created by living persons only are:

Retirement Trusts.—These trusts are created to build up an estate during the more fruitful years of an individual's lifetime, while providing relief from the problems of management of the property during the declining period of life. The settlor is both creator and beneficiary in such a trust. If no provision is included for passing on the corpus of the trust to another upon the death of the beneficiary, the courts may construe it as a **naked trust,** that is, one in which no true transfer of property has been made. In the event of a suit against the beneficiary, the trust would then be open to attachment like any other property owned.

Life Insurance Trusts.—These consist of the proceeds of life insurance policies on the life of the creator. Policies are made payable to the trustee, and the proceeds are collected by the trustee when due, either during the life of the creator in the case of endowment policies, or at the creator's death with other policies. Life insurance trusts have become increasingly popular in recent years as a means of enabling persons in moderate circumstances to create an estate forthwith without waiting to accumulate savings over a long period of years. Life insurance trusts are divided into three categories, known as funded, partially funded, and unfunded life insurance trusts.

1. **Funded life insurance trusts** call for the deposit of securities in the trust, and premiums on the life insurance policies are paid from the income received on these investments. The trustee assumes the responsibility not only of caring for the securities, but also of paying the premiums. The creation of an estate is thus assured by the settlor, since payment of the life insurance premiums is made certain. Also, the investment of the proceeds of the insurance policies will be undertaken by the trustee, whether they become due and payable during the lifetime of the settlor or, as is usual, after his decease. Care must be taken in drawing up the agreement creating a funded life insurance trust in New York or any other state which has a rule against the accumulation of income in a trust. Provision should be made in these cases that, in the event that investment income exceeds the amount of the premiums paid, such excess shall be distributed to some other beneficiary named in the agreement.

2. **Partially funded life insurance trusts** provide that securities be deposited with the trustee to furnish a part of the premium payments on the life insurance policies making up the trust. The difference between the amount of income accruing from the securities and the total sum needed to pay premiums is provided by the creator of the trust. The trustee is responsible in these trusts for paying the premiums, but he bills the creator for the difference between investment income and premiums payable. To facilitate payment of the difference, an account may be opened in which the creator deposits equal monthly instalments to equal his share of the annual premiums due on the life insurance policies.

3. **Unfunded life insurance trusts** provide that the settlor is entirely responsible for paying the premiums on the policies. No securities are deposited with the trustee. The trustee then assumes no responsibility until the life insurance policies become due and payable, after which the arrangement is the same as under other types of insurance trust.

Trusts in Contemplation of Death.—Trusts of this kind are created by living persons who wish to dispose of a part of their property during their lifetime so that the beneficiaries can enjoy the income without assuming the burden of management, for which they may not be fitted by experience. If a trust is made in contemplation of death, if it takes effect only upon the death of the creator, or if the creator retains control over the property, the trust deed will be treated as if it were a will upon the death of the creator.

Trusts in contemplation of death are made where the natural heirs are quite importunate or are actually in need of their share of the estate during the creator's lifetime. The creator establishes a trust for each beneficiary in an amount that is believed to approximate that beneficiary's share of the estate, or what the creator wishes to leave to the individual beneficiary on his death. The creator thus spares himself repeated pleas for the prepayment of funds that his heirs expect to receive at his death.

Pension and Profit-Sharing Trusts.—Many businesses have established pension and profit-sharing plans under which trust funds are set up for the payment of retirement and other benefits to employees.

REVOCABLE AND IRREVOCABLE TRUSTS.—A voluntary or living trust may be either revocable or irrevocable. The creator may reserve the right to terminate the trust agreement at his pleasure or on the happening of some contingency, or the trust may take the form of an absolute and irrevocable gift. The form to use depends on the circumstances of each individual case, particularly the creator's age. Younger persons usually want to retain the right to terminate or alter the agreement as personal and family developments indicate changes in beneficiaries or other terms of the trust, or perhaps make it desirable to terminate the agreement entirely.

Living trusts of elderly people should usually be irrevocable. The property in the trust then becomes an absolute gift and gift taxes are paid thereon. A gift tax is not paid if the trust can be revoked, for then the gift is not absolute. Circumstances affecting the lives of older persons are less subject to wide changes as regards beneficiaries or the size of their estates.

The settlor of an irrevocable trust may retain the right to supervise or to be consulted by the trustee as regards the investment of trust funds during his lifetime, if he so desires.

Testamentary trusts cannot be revoked or changed by the will of the testator. However, such power can be given by the testator to the trustee or some other party.

SPECIAL TYPES OF PERSONAL TRUSTS.—Particular requirements of circumstances lead to the establishment of special types of personal trusts, with suitable forms of trust instruments. These arise both in living and testamentary trusts. The more important are:

Sheltering Trusts.—It is possible for a husband to provide a separate and certain income for his wife, or for parents to assure the support of their children, while relieving the beneficiaries from investment care and risks and shielding them from incompetent advisers. This can be done by establishing a sheltering trust, either by agreement or will, with appropriate provisions and conditions to achieve the objectives desired.

Spendthrift Trusts.—These are a variety of sheltering trust designed to protect an improvident beneficiary from his or her lack of responsibility in the care and spending of money. Laws of some states permit the placing of both the corpus and the income of a spendthrift trust out of reach of the beneficiary's creditors and do not allow the spendthrift to anticipate income from the trust fund. In New York State, however, many of these advantages of a spendthrift trust are lost because of a statutory provision that corpus and income of a spendthrift trust can be attached under the same contingencies in which this can be done with other personal trusts.

Trusts for Incompetent Persons.—Such trusts are created for individuals unable to carry on their affairs because of some physical or mental incapacity. Under this type of sheltering trust, the creator is assured that an incompetent charge will be cared for whether the creator lives or dies. In the case of a living trust of this type, the settlor knows that if he suffers business or investment losses, the incompetent will continue to be provided for.

Charitable Trusts.—Trusts for charitable, religious, literary, or scientific purposes may be perpetual in duration, with designated institutions or a class of persons as continuous beneficiaries of the trust income. Beneficiaries may be a church, college, hospital, or other established eleemosynary institution, or a specified activity such as the provision of scholarships and fellowships or the support of the poor of a certain community.

Trusts for Emergencies.—Provision can be made for unforeseen as well as known needs of beneficiaries by authorizing the trustee, in case of emergency, to make use of principal in addition to income from a trust fund. If, for example, a man feels that the income from a trust fund, though adequate for ordinary needs of his beneficiary, may not equal the expenses of higher education, he may give the trustee discretion to use part of the principal for the latter purpose. Likewise, a creator may authorize the trustee to use part of the principal for medical expenses, and other specified contingencies, to relieve beneficiaries of

anxiety under circumstances in which income alone may be too small for their needs.

Rewarding Trusts.—The creation of such trusts may be motivated by a number of different desires, such as assuring old and faithful servants of an independent income after the employer's death or expressing gratitude to persons who have aided or been kind to the creator during his lifetime.

DURATION OF TRUSTS.—Trusts for the benefit of individuals are limited as to duration in all jurisdictions which follow the principles of the English Common Law, as do most of the states of the United States. The courts of England have always opposed the tying up of property for too long a time. The British have laid down two basic rules, widely adopted in the United States, which govern the duration of personal trusts for individual benefit. These are the Rule against Perpetuities and the Rule Against Restraints on Alienation. The **Rule Against Perpetuities** requires that full title to property in a trust must be vested in others not later than 21 years after the death of one or more living persons named in the trust instrument. The **Rule Against Restraints on Alienation,** also known as the **Rule Against Undue Postponement of Direct Enjoyment or Ownership of Property,** holds that vesting in others of title to property placed in trust cannot be postponed pending some unlikely contingency, such as when a specified village will become a city. Under the New York statute, the power to suspend ownership of both personal and real property by means of a trust is limited to the continuance of no more than two lives in being at the time of the creation of the trust, the death of the testator, or the date of the instrument if other than a last will, plus a further postponement during the minority of beneficiaries on the termination of the designated two lives in being. The statute specifies that "lives in being or a minority in being shall include a child begotten before the creation of the trust estate but born thereafter."

Personal Trust Operation

COLLECTION OF TRUST ASSETS.—The settlor under a living trust agreement usually turns over the assets of the trust to the trustee at the time the instrument is drawn, or shortly thereafter. Assets of testamentary trust, on the other hand, remain under the control of the executor of the estate until it has been settled. The executor may or may not be the trustee named in the will. Upon settlement of the estate by the executor, it is incumbent on the trustee to collect the trust assets within a reasonable time, any losses resulting from failure to do so being chargeable to the trustee.

The trustee prepares an inventory of all assets as they are received and appraises them as of the date of receipt. This is done to relieve the trustee of responsibility for losses incurred prior to receipt of the assets and to determine increases or decreases in value following taking of possession, as well as to provide a base for calculating fees.

RELATIONS WITH THE BENEFICIARY.—An alert trust company gets in touch with the beneficiary or beneficiaries as soon as it has received and appraised the trust estate. Two considerations impel

it to do so. First, establishment of a friendly relationship with the beneficiaries is desirable, to make clear to them that the trust company is willing to cooperate with them to the best of its ability within the terms and limitations imposed by the instrument. Secondly, arrangements must be made with the beneficiaries for the payment of income and the rendering of statements to them by the trustee. In many instances, by mutual agreement between the beneficiaries and the trustee, income is paid in equal monthly or quarterly instalments, with any surplus above the regular payments being payable on the anniversary date of the creation of the trust. Statements may be rendered with each income payment, but they are often made quarterly to save the trustee time and trouble and reduce charges against the corpus of the trust.

Once the assets of a trust have been inventoried and appraised, and a personal relationship has been established with the beneficiaries, the trustee begins to administer the trust according to the terms of the will or trust agreement.

CARE OF TRUST ASSETS.—Responsibility for the physical care of the assets held in trust accounts is usually placed in one or more persons appointed by the trust department head. These individuals are the only ones permitted to give and take receipts for transfers of securities held in trust.

Index file cards are prepared for each trust, listing the securities and other assets held in the account. The description of bonds held includes first call date, date of maturity and due date of each issue. Stock descriptions show whether the shares are preferred or common, and dividend dates. Arrearages of interest or dividends due are noted.

Payments of income and principal are listed separately on the cards, partly to avoid accumulations of income in the trust in states where this is banned, and partly to assist in the final accounting required prior to distribution of the corpus on the termination of the trust. If the trust instrument or state laws provide that premiums on bonds purchased above par are to be amortized, a record of such amortization is kept. In New York State, if the settlor or testator does not so direct, the trust company is not required to provide for such amortization.

Machine bookkeeping has modified record keeping practices in important respects, especially in larger trust companies.

Accumulation of Income.—Certain states prohibit the accumulation of income in a trust, fearing that excessive amounts of property will thus become impounded in trusts, except where the beneficiary is a minor. In the latter case, when the beneficiary reaches 21 the accumulated income must be paid to him.

During the beneficiary's minority, his share of the income is set aside in a separate account and is excluded from the trust fund proper. The money so set aside for the minor may consist of only part of the income accruing from the trust assets during the beneficiary's minority, where the trustee contributes to the living and educational expenses of the minor from the latter's share of the trust income.

To carry out the donor's purpose to provide an income for the beneficiary, it is proper to include provisions in the trust instrument that the beneficiary shall not anticipate income, and that neither principal nor income shall be assigned or attachable for the beneficiary's debts. In some states, the statute safeguards against alienation of income.

Trust Instrument Provisions

NATURE OF THE PROVISIONS.—The provisions of a trust instrument should specify clearly how the trust shall be conducted during its term and the manner in which it is to be distributed on its termination. The most important provisions deal with the disposition of income accruing to the trust, the inviolability of the corpus, investment restrictions, and the final distribution.

PROVISIONS AFFECTING INCOME AND PRINCIPAL PAYMENTS.—The simplest arrangement is that the income from the trust shall be payable to one beneficiary and the principal on the latter's death shall be paid to another person or persons. In this case, no provision is made for payments from principal prior to termination of the trust, and the principal is usually assumed to be inviolable during the life of the trust. But the settlor or testator, to assure beneficiaries adequate income, may provide that they are to receive a specified sum per annum from the trust, and if the income does not provide the amount designated withdrawals may be made from the corpus of the fund. The trust then provides an annuity, since beneficiaries are practically guaranteed a fixed income each year.

It is necessary to ascertain the intent of the creator before making advances from principal. Counsel should be consulted if the instrument is not clear, to determine the proper course of action. The remaindermen should be requested to agree to any principal payments that are to be made, unless such payments are specifically authorized in the trust terms. If payments are made from the corpus without proper authorization, the trustee is liable for the amount of the payments to the remaindermen upon termination and distribution of the trust.

INVESTMENT PROVISIONS.—A trust company is limited in the investment of trust funds by restrictions contained in the instrument under which it acts. Any deviation from limitations laid down by the creator of the trust that result in losses to the trust fund are chargeable to the trustee.

There are three ways in which the creator may define the investment powers of the trustee. These are:

1. **Limitation to legal securities,** as these are defined by the laws of the state in which the trustee is located. This limitation may be effected either through a clause in the trust agreement or through failure to specify any investment powers. Where no provision for investment is made, the trustee is held to be bound to securities that are legal investments for trustees.

2. **Discretionary investment provisions,** which authorize the trustee to use his prudent judgment in selecting securities for the investment of trust funds. Under a discretionary provision, the trustee may invest in any type of security, including stocks as well as bonds and mortgages.

3. **Securities may be designated in the trust instrument,** consisting of stocks or bonds turned over to the trustee at the inception of the trust, or to be purchased by him. It is commonly provided, however, that the designated securities may be sold if this appears wise to the trustee, which places a measure of responsibility upon him.

In recent years, there has been a trend towards liberalizing state laws restricting trust investments. A number of states now use the **prudent man rule,** first adopted in Massachusetts, which has been defined by the courts as "the exercise of sound judgment and care under the circumstances currently prevailing, which men of prudence, discretion and intelligence would exercise, not in regard to speculation, but in regard to investment, considering income as well as the safety of the principal." No particular groups of securities are specified as legal investments under this rule. Other states designate classes and groups of investments that may be purchased, which then constitute the **legal list** for that state.

Where investment powers are not specifically included in the trust instrument, the courts in some states hold that the trustee has no authority to sell assets originally included in the trust. In other decisions, the power of sale is held to be implied even though it is not mentioned. But even where the trust instrument bars the sale of trust assets, there are instances where the courts have permitted liquidation of holdings which constitute a drain on the remainder of the estate, and thereby threaten preservation of the estate as a whole.

A great variety of restrictions on investment powers is found in individual trusts. The trustee may be authorized to hold assets received, but to reinvest the proceeds from the sale of these assets only in legal investments or government obligations. Rights issued to holders of bonds or preferred stock for the purchase of new common shares may be exercised, it may be provided, even though the trustee is not allowed to invest in common stocks otherwise. The sale of such common shares shortly after their acquisition may be desirable to avoid surcharge due to losses if the shares decline.

It is not wise to restrict the freedom of action of a trustee too closely in matters of investment because of changing economic conditions affecting industries, communities, and individual concerns. Detailed restrictions that seem wise when drawn may work to the disadvantage of a trust later. Efforts to obtain relief from onerous restrictions in the court involve legal costs that may have to come out of the principal of the trust fund. Furthermore, investment instructions should be kept as simple as possible to avoid confusion as to the intent of the creator.

INVESTMENT DUTIES OF A TRUSTEE.—Diligence and prudence are required of a trustee at all times, no matter what are the investment provisions of the trust deed. Even where the instrument limits investment to the legal list, the trustee must select the more desirable investments among these from both a quality and an income standpoint. A trustee is required by law to seek a reasonable income from the trust assets, as well as to provide safety of the principal. Where a legal investment is removed from the legal list by a change in the law or a decline in the issuer's earnings, prudent judgment indicates that it should be sold when a reasonable price can be secured in the market.

A trustee is not expected to have prescience in forecasting long-term business trends or market conditions. If, after considering pertinent factors, a security is purchased and later sold at a loss, a trustee cannot be held liable to surcharge for such loss if it is proved that the transaction was in good faith and warranted by conditions at the time. In one case, a bank sold for a trust securities of a corporation whose earning

power had deteriorated over a period of years with recovery prospects quite doubtful. But during World War II, the company enjoyed an unexpected recovery in earnings and market prices, for its securities rose sharply. The beneficiaries sued to surcharge the bank for the difference between the price at which the security had been sold and the high price prevailing at the time of the sale. The court upheld the bank on the ground that it could not be expected to foresee the outbreak of war in the future, let alone the consequences of a war economy upon the operations and earnings of the company.

RESIGNATION OF A TRUSTEE.—A trustee may refuse to accept his assignment. But once having accepted the appointment, he may resign only with the permission of the courts, which usually require that a substantial reason be given for requesting relief from the assignment. A trust company or other trustee may resign because of a strong disagreement with a co-trustee appointed to act with it over investment policy or other issues. Resignation may be brought about also because the beneficiary or beneficiaries are constantly at odds with the trustee, and the latter finds it impossible to reach a satisfactory settlement of the difficulties.

The trust is not terminated when a trustee is allowed to resign. Rather, another trustee is appointed to carry out the terms of the trust.

TERMINATION OF A TRUST.—An accounting of the estate for the entire period of the trust is rendered by a trustee upon termination. After rendering this final accounting, the trustee distributes the corpus of the trust to the named beneficiaries, or those judicially designated by the court as beneficiaries if it is not clear to whom the corpus should be delivered because a beneficiary had died before the termination of the trust. Court approval of the final accounting may be asked, or the beneficiaries may be requested to give a receipt and release. If a minor is involved, it is advisable not to use the receipt and release form of settlement, since a minor cannot give a legally valid release.

Management of Trust Investments

FUNCTIONS OF AN OFFICERS' INVESTMENT COMMITTEE.—In most large trust companies, the investment of funds of individual trust accounts is under the care of an officers' investment committee. This committee is usually composed of the senior trust officer, the senior investment officer of the trust department, the head of the securities analysis department, and the junior investment officers who head the several divisions of the reviewing department.

The officers' investment committee is responsible for the over-all investment policy of the personal trust department. Through the junior officers attached to the reviewing department, it supervises the investments of individual accounts according to their needs and in the light of investment provisions contained in the instruments under which the trusts were created.

The committee is advised by both the securities analysis department and the reviewing department. The analysis department recommends the purchase, sale, retention, or future liquidation at a specified price of individual securities. The investment committee approves or disap-

proves these recommendations and submits its findings to the investment committee of the board of directors or trustees of the institution for final approval or disapproval. Ultimate legal responsibility for trust investments rests with the directors.

THE REVIEWING DEPARTMENT.—The principal function of the reviewing department is to carry out the decisions of the officers' investment committee in the management of the investments of individual trusts. In a large trust company, the reviewing department comprises the following sections:

1. **Unrestricted accounts.** Trusts in which the company has full powers of investment in all types of securities, without limit as to the amount of each type of security invested in.
2. **Special accounts.** Accounts with special investment provisions such as limitation to bonds, to preferred stocks or to municipal securities, or where the limitation provides for investment in securities of a specified company or industry.
3. **Legal investment accounts.** Limited to legal securities as defined by the state in which the bank or trust company is located.

The junior officer in charge of each section has a staff that constantly surveys the accounts under his charge. This enables him to keep the investment committee informed as to the investment needs and problems of individual trusts.

A reviewing department of a large institution also has sections that take care of the mechanics of investments for estates or trusts and the setting up of new accounts on a going basis so that they can be assigned to the sections named above. This department makes periodical reviews of custodian accounts.

Reviews of the individual accounts consist of a tabulation showing the current market value of each holding. Securities are classified and totals set down for bonds, preferred stock, common stock, mortgages, and cash. On a summary sheet significant facts concerning the trust's investments and the recommendations of the securities analysis department are listed. This review is signed by the senior reviewer and is presented by him to the officers' investment committee for approval, and for instructions as to the action to be taken.

The reviewing department watches for calls of bonds or preferred stock, and brings them to the attention of one of the investment officers, who in turn informs the investment committee. It notes the issuance of rights to subscribe for additional securities.

A diary of each individual trust account is kept by the reviewing department, which indicates all letters received or sent, telephone calls, etc., and a journal records sales and purchases of securities and additions or withdrawals of assets and cash.

THE SECURITIES ANALYSIS DEPARTMENT.—The securities analysis department of a trust company seeks to determine the qualifications of individual issues as trust investment. The department is concerned with investments for all accounts, rather than with the needs of individual trusts, though special studies affecting the investments of one account are made from time to time when special circumstances arise. Pertinent industrial, accounting, and financial information is compiled about each issue. This information is embodied in a report, and a recommendation is attached that must be concurred in by the

head of the department. Copies of the report and recommendation are sent to each member of the investment committee, who studies them prior to the meeting at which the report is either accepted or rejected. General economic conditions, the movement of interest rates and trends in individual industries are also studied by this department.

The securities analysis department is divided into specialized sections in the large institution. These are:

1. **Industrial,** the largest group, covering securities of extractive, manufacturing, trade, and miscellaneous enterprises.
2. **Public utility,** concerned with securities of electric light and power, gas, municipal traction, water, and other public service corporations.
3. **Railroad.**
4. **Municipal,** including state, school district, and public authority obligations.
5. **Bank and financial,** including insurance and finance company securities.
6. **Foreign,** comprising government and corporation securities.
7. **Special.** Studies particular situations such as refundings, new financing, reorganizations, proxy statements, and other matters that may affect the position of a security of an issuing company.

OTHER DEPARTMENTS.—Other departments which participate in the management of trusts and agencies include:

1. **The Tax Department,** which sees that tax returns are filed and taxes are paid. This department takes care of tax problems that arise in settling an estate, before the final distribution is made. It follows changes in tax laws and regulations affecting fiduciary accounts.
2. **The Accounting Department,** which handles the accounts of each trust and agency and prepares the final accounting prior to termination of the trust company's control of the account.
3. **The Mortgage and Real Estate Department,** handling these important types of investment, which is often placed under the supervision of a separate officers' and directors' committee.

Liabilities of a Fiduciary

ACCOUNTABILITY OF THE TRUSTEE.—Fiduciaries are required to act in good faith and with proper diligence, in accordance with the trust instrument and the laws of the state having jurisdiction. Failure to do so is considered a breach of trust, and resulting losses are surcharged by the courts against the trustee. The surcharge for breach of trust is designed to return to the beneficiary either the assets that were lost, plus the income thereon, or a sum of money equal to the damage suffered. The beneficiary's interest is thus restored to what it would have been if the trustee had not failed in his duty.

The courts hold a trustee accountable for negligence committed either through positive acts or omissions of duty. [Waterman v. Alden, 144 Ill. 90, 32 N. E. 972 (1893).] Acts of negligence or omissions of duty include:

1. Making any unauthorized investment that gives rise to loss. [State v. Washburn, Conn. 187, 34 Atl. 1034 (1896).]
2. Failure to diversify investments as authorized by the instrument or law, when this failure results in undue losses to the trust.

3. Carelessness in permitting an agent or co-trustee to breach the trust instrument, which causes losses to the trust fund. [Creed v. McAleer, 275 Mass. 353, N. E. 761 (1931).]
4. Failure to collect rents or other income when due, thereby depriving the trust of income.
5. Retaining securities or other assets for an unreasonable time after they fall below the standards for trust investment, or holding too long securities which when received in the trust, were ineligible for investment of trust funds. [Babbitt v. Fidelity Trust Co., 72 N. J. Eq. 745, 66 Atl. 1076 (1907).]

A large proportion of surcharge suits revolve around the failure of trustees to sell securities or property in a trust on some date before these assets suffered sharp declines in value. Counsel for beneficiaries in such cases seek to prove that, with the exercise of due diligence, the trustee would have sold when an annual report appeared showing a loss, or when some other event should have indicated the wisdom of selling. Particularly during and since the depression of the 30's, the courts have been less ready to surcharge trustees indiscriminately, recognizing that the decision must be based not on hindsight but upon the situation that existed when the trust company was confronted with the decision whether to hold or sell, and had to weigh the favorable as well as the unfavorable elements in the outlook for the security.

Liability of a Trustee Dealing with Itself.—A trustee is liable for losses on all dealings with itself, such as the sale of property to the trust, either directly or indirectly. The beneficiary may approve the transaction and require completion of the sale, recovering the excess, if any, of the selling price over the value of the property to the trust. [Hartman v. Hartle, 95 N. J. Eq. 123, 122 Atl. 615 (1923).] He may also have the sale set aside and all payments for purchase of the property refunded by the trustee. [French v. Westgate, 71 N. H. 510, 53 Atl. 310 (1902).] Profits accruing to a trust, whether from proper or improper management, belong to the beneficiary [Robertson v. Hirsh, 276 Mass. 452, 177 N. E. (1931)], and the trustee is accountable for all profits.

Executors and administrators of estates and guardians and committees of minors and incompetents are liable for the above acts, like trustees.

BREACHES OF TRUST.—Breaches of trust for which fiduciaries are always held liable are:

1. Fraud, such as misappropriation of the corpus or income for the benefit of others than the heirs or beneficiaries. This type of breach is not only surchargeable against the fiduciary, but makes him liable also to criminal prosecution.
2. Failure to pay taxes due.
3. Failure to reinvest trust funds for an unreasonable length of time, thereby causing loss of income to the trust.

Personal Agency Functions

RANGE OF FUNCTIONS.—Personal agency functions performed by trust companies range from the simple duty of acting as depositary for the assets of individuals, with no other service involved, to the function of fiscal agent. The latter capacity may include possession and complete management of an individual's estate, and can be likened to

the function of trustee, save for the fact that ownership of the estate remains with the principal and is not vested in the trust company. Not only do trust companies care for the assets of individuals, but they also care for estates under the control of individual executors, administrators, and trustees.

SERVICES PROVIDED BY TRUST COMPANIES.—Typical agency services provided by trust companies for individuals include:

Agent or Depositary for Individual Executors, Administrators, and Trustees.—Many individuals charged with the care and settlement of an estate or trust find it more convenient to leave the detail work and the custodianship of the assets to a trust company, while reserving to themselves the making of decisions under the trust instrument. The trust company, as agent, receives the assets from the individual fiduciary and holds them for safekeeping. If requested by the executor or trustee, books recording all transactions affecting the estate are kept by the trust company, including entries of principal accruing from redemption of bonds or preferred stock, income received from coupon payments and dividends, and rents from real property. However, the individual fiduciary may prefer to keep his own books, and the agent then credits all funds received to a bank account or other designated depositary.

The trust company may also keep the individual fiduciary informed of redemption of securities, rights to subscribe to additional securities, and steps proposed by an issuer that might affect the position or equity of bonds or outstanding stock. The executor or trustee may direct the institution to make changes in assets from time to time. Investment advisory services are made available by trust companies, as is advice on legal problems connected with performance of fiduciary powers by an individual.

When acting as agent or depositary for an individual fiduciary, the trust company does not assume the responsiblities of the former. It acts in a strictly mechanical manner by direction of its client. However, it is advisable for the institution to keep on hand a copy of the instrument under which the client received his powers, to satisfy itself that the principal does not violate the terms of the will or agreement.

Custodial Accounts for Individuals.—There are a number of agency services provided individuals by trust departments of banks and trust companies. Three of the chief services of this kind provided are:

1. **Agency accounts,** in which the trust company holds the securities of an individual for safekeeping. Income and principal are collected and remitted to the owner, or the person or institution designated to receive such funds. The trust company renders a periodic statement of transactions affecting the account, differentiating between principal and income.

2. **Agency accounts with investment service** receive the services provided straight agency accounts and the facilities of the trust company's reviewing and security analysis departments for the management of investments, with recommendations for shifts from time to time. Depending on the wishes of the principal and what he wishes to pay for such additional services, reviews and analyses may be on a monthly, quarterly, semiannual, annual, or continuous basis. The reviews list securities in the account, comment on their quality, and indicate sug-

gested changes, to be made at the discretion of the principal. This type of service has shown rapid growth in recent years.

3. **Safekeeping accounts** resemble straight agency accounts, except that income and principal, as received, go directly into the principal's bank account. No periodic statements are sent out, but advices of each purchase and sale of securities are sent, the principal keeping his own records of funds received in his bank account.

ESCROW ACCOUNTS.—An escrow holds something of value for one person that is to be delivered to another upon the happening of a specified contingency agreed upon between the parties. In this type of account, the trust company does not take title to the property as in a trust. It holds the property as a depositary for the parties to the escrow agreement, and protects both in accordance with the contract.

Personal Trust Fees

SETTING FEES AND COMMISSIONS.—Fees and commissions on trust and other fiduciary accounts are set either by law or by the provisions of the instrument, as in the case of individual fiduciaries. The creator may specify the compensation of the fiduciary as he sees fit, making it either less or more than the fees stated in the state law. Once having accepted a trust, the fiduciary is bound to limit himself to the payment specified. If a trustee is dissatisfied with the fee specified, he must reject the proffered trust, and the court will appoint another trustee. If none will accept the assignment at the fee mentioned, the court will authorize payment of the legal fees to such substitute trustee.

If no payment is specified by the creator, a fiduciary's fees are set by the laws of the state in which he is located. Extra fees, over and above those provided in the instrument or by law, might be permitted by the courts where exceptional demands on the fiduciary's time and ability are found necessary to administer the estate or trust properly, so that payment of the usual fees would be inequitable.

TYPICAL FEES.—Payments allowed fiduciaries under the laws of the State of New York are as follows:

Fees and Commissions to Testamentary and Inter Vivos Trustees.—

1. Annual income fees.

6% on the first $2,000 of income.
3% on the next $10,000 of income.
2% on the balance of income over $12,000.

2. **Annual principal commissions** on trusts may equal 110% of the annual income fees. However, in no event may total principal commissions be in excess of 6% of the corpus of the trust as of the date of its receipt by the trustee, plus subsequent additions of principal after that date. Additions accruing to the trust from income may not be used as a part of the base for calculating fees on principal.

On termination of the trust, before the maximum principal commission has been taken by the trustee, he is entitled to the difference between the amount of principal commissions collected and the following percentages:

5% on the first $2,000 of principal.
2½% on the next $20,000 of principal.
2% on the remaining principal balance.

However, if a trust should terminate within 5 years of its inception, the trustee is allowed only one-half of the above principal commission.

3. **Fees on a perpetual trust.** There are no principal commissions allowed to a trustee of a perpetual trust under the New York State law. The only fee permitted is an annual fee of 5% on the income accruing to the trust annually.

4. **Fees to co-trustees.** Only one commission on principal and income is permitted annually by New York State law, no matter how many trustees there are, if the corpus of the trust is less than $100,000. This commission is usually split up into equal portions for each trustee. If, however, the corpus of a trust is over $100,000, up to three commissions, but no more, may be paid to the several trustees.

Fees and Commissions to Executors, Administrators, Guardians, and Committees for Incompetents.—

1. **Annual income fees.**

5% on the first $2,000 of income.
2½% on the next $20,000 of income.
1½% on the next $28,000 of income.
2% on the balance of income over $50,000.

2. **Principal commissions and fees** to executors, administrators, guardians, and committees for incompetents are the same as those permitted to trustees under New York State law, except that normally one-half of the principal fees are taken upon receipt of the estate and the other half is taken upon distribution to the residuary legatees.

Fees and Commissions on Custodian Accounts.—These fees differ according to the type of account, the kind of securities involved, and the particular trust company. In general, the leading trust companies in New York City charge similar fees for custodial and fiscal services. A typical schedule of fees charged by a major trust company follows:

1. **Fees for custody of securities.**

Bonds:
$1.00 per $1,000 par value per annum on first $500,000 in bonds held.
$.75 per $1,000 par value on the next $500,000 of bonds.
$.50 per $1,000 par value per annum on all bonds over $1,000,000.
Stocks:
$.05 per share per annum on the first 10,000 shares held.
$.025 per share per annum on all shares held in excess of 10,000 shares.

2. **Minimum fee on custodial accounts.** The minimum fee on all custodial accounts shall be at least $50 per annum, but not less than $4 per issue per annum.

3. **Fees for receipt and delivery of securities in a custodial account.** For receiving or deliverying securities either against payment or receipt, including the transfer thereof if necessary, the charge is $1.50 for each issue or security involved. However, no charge will be made for receiving or delivering securities in connection with the opening or closing of an account.

4. **Statement fees to the owner of a custodial account.** Once in each year the trust company will send a statement of the securities and the transactions affecting them in each custodial account. The cost of this statement is included in the regular charge for the account. Each additional statement will cost $.05 per item listed, the minimum fee being $2.50.

5. **Special statement fees.** For a special statement of yearly income, including profits and losses on security transactions classified for income tax purposes, the charge will be based on the amount of work involved, with a minimum charge of $25.

Fees for Investment Supervisory Services.—Fees for supervision of investments on custodial accounts vary according to the amount of supervision the owner of the securities desires. Charges for different degrees of such services by a major trust company in New York City are as follows:

1. **Continuous supervision of investments.** This charge is 5% of the income collected annually on the securities in the account, plus the regular custodial fees. The minimum annual fee for investment supervision is $500.

2. **Periodic investment supervisory services.** Initial review—$7 per item, or a minimum fee of $150.

3. **Reviews subsequent to initial review.** Reviews made within one year after the initial review shall be charged at the rate of $5 per item, or at a minimum fee of $150.

Government issues and government-guaranteed issues are counted as one item only.

Fiduciary Functions for Corporations

BANKS AND TRUST COMPANIES AS FIDUCIARIES.—Banks and trust companies first began to act as fiduciaries for business concerns about 1830. A corporate trustee was first appointed for a corporation bond issue in 1839, when the Beaver Meadow Rail Road Co. appointed the Girard Life Insurance, Annuity and Trust Co. of Philadelphia trustee under its mortgage. With the development of railroad bond financing in the middle of the nineteenth century, the present form of trusteeship under corporate mortgages was evolved. Trust companies first acted as transfer agent and registrar for corporation stocks about 1860, as the need for safeguards to prevent fraudulent overissuance of shares became apparent. In 1869, the New York Stock Exchange adopted a rule that corporations whose shares are listed on the Exchange must have an independent registrar.

Corporate trust business can be highly mechanized, as a result of which it often proves more profitable to the trust company than personal trust activities.

Corporate trust functions include:

1. Trustee under corporate mortgage or other instrument of indebtedness.
2. Receiver or trustee for corporations involved in reorganization or other litigation.

Corporate agency functions include:

1. Fiscal agent.
2. Transfer agent.
3. Registrar.
4. Agent for corporations in reorganization.
5. Agent for corporations in process of consolidation or merger.
6. Escrow agent.
7. Depositary under voting trust agreements.

TRUSTEE FOR BONDHOLDERS UNDER INDENTURE.—The trustee under a corporate indenture functions on behalf of the holders of all the bonds issued under the indenture. At one time, individual trustees were appointed. But individual trustees often died or were incapacitated during the life of a long-term bond issue, and some were inefficient in the performance of their duties. In the interest both of the corporation and the bondholders, the appointment of a qualified fiduciary, with perpetual existence, was logical.

The first duty of a corporate trustee is to investigate the issue and the issuer, to assure that all legal requirements have been met. The trust company cooperates in drafting the indenture, under which it will function as trustee.

The trust company authenticates each bond to prevent overissuance and to assure that it enjoys the protection of the indenture. Authentication is effected by placing a certifying stamp on the face of the bond, showing that it is covered by the original authorization and indenture.

During the life of the bonds, the trust company watches for any breach of the agreement on the part of the issuing corporation. If a breach occurs, it serves notice on the issuer, and if the defect is not remedied it may start an action to protect the bondholders. Upon payment of a part or all of an issue of bonds the trustee receives the paid bonds and either destroys them or officially marks them as paid. Payment of maturing or called bonds may be effected by depositing funds for this purpose with the trustee. In the event bonds are refunded by an exchange for new obligations, the trust company may act as exchange agent.

The exercise of this function by trust companies is largely affected by provisions of the Trust Indenture Act of 1939.

INDIVIDUAL CO-TRUSTEE FOR CORPORATE BONDS.—In addition to the corporate trustee, an individual is often appointed to act as co-trustee with the trust company. This person's responsibilities are theoretically the same as those of the corporate trustee, but he actually plays a passive role until a default or other breach of the indenture occurs. The individual trustee may then bring the action in the courts against the company. This is necessary where the trust company as a foreign corporation is barred from bringing suit in the courts of certain states. Under the Constitution, a citizen of one state has all the rights of the citizens of the several states.

RECEIVER OR TRUSTEE.—Trust companies have been appointed receiver or trustee for corporations by some courts. This has been opposed by the legal profession, and in New York the trust company law was amended to bar trust companies from accepting such appointments.

Agency Functions for Corporations

FISCAL AGENT.—Trust companies act as coupon-paying agents for bond interest and as agents for sinking funds on bonds and preferred stock. Upon payment of coupons, they are cancelled and either returned to the issuing corporation, which pastes them in special coupon books, or destroyed. Trustees require proof, when bonds mature, that coupons have been paid before declaring the indenture satisfied. Trust companies also act as dividend-paying agents for equity securities. Through such agency functions, the trust company relieves the issuer of a vast amount of clerical work in keeping records, drawing checks, etc. It also facilitates collection of the funds due them by security holders. Handling many such accounts, a trust company can minimize the cost per item by keeping its staff continuously employed, whereas a corporation would have to hire many people for such work and keep them busy only around the interest or dividend-payment dates.

A further duty of the coupon-paying agent is to withhold any income taxes which the corporation is required to withhold or pay on the coupons, and to file with the United States Bureau of Internal Revenue the monthly and annual reports of coupons paid and taxes collected which is required by law. The board of directors of the corporation must give the coupon-paying agent special authorization to withhold and pay income taxes to the government and to make and file the statutory reports.

TRANSFER AGENT.—A transfer agent keeps a record of transfers of stock ownership. Either a trust company or an official of the issuing corporation may be named for this function.

The transfer agent is responsible for accurately recording changes in stock ownership. He receives certificates for shares sold from the purchaser or his agent, ascertains that they have been properly endorsed by the stockholder of record, and then issues new certificates covering the same number of shares represented by the old certificates, which are cancelled by the transfer agent. In addition, a transfer agent must make certain that the seller of shares offered for transfer has the legal power to sell them.

If more than one transfer agent is appointed for a company's stock, it is imperative that they keep each other informed of all transfers. Multiple transfer agents may be appointed for different cities or countries. Transfers of bonds and other securities, as well as stocks, may be effected by a trust company.

Transfer agents are often appointed dividend-paying agents also, since they maintain the stockholders' list in any event.

REGISTRAR.—Trust companies as registrars keep a record of the issued and outstanding shares of a corporation to prevent the issuance of more shares than are authorized by the certificate of incorporation. The registrar thus prevents illegal dilution of the equity of shareholders by fraudulent overissue of stock.

It is now a general rule among stock exchanges in the United States that shares listed thereon must be registered with an agent not connected with issuer. Certificates transferred by the transfer agent must be countersigned by the registrar, and stock certificates cancelled must

be recorded as such by the registrar also. The books of both agents must agree, and they provide a constant check on each other in assuring an accurate record of the ownership of issued and outstanding shares and in preventing the issuance of certificates for shares beyond the legally outstanding amount.

SUBSCRIPTION AGENT.—Banks and trust companies may act as subscription agents for a new offering of stock by a corporation to its shareholders, through the issuance of rights. In this capacity, they accept subscriptions, issue full or partly paid receipts or purchase certificates, receive subscriptions from underwriters of the new issue, and deliver the new securities to the subscriber upon surrender of full-paid subscription receipts or purchase certificates.

DEPOSITARY UNDER VOTING TRUST AGREEMENTS.—A voting trust agreement calls for the deposit of stock with a trust company under an agreement providing that the shares shall be voted by specified voting trustees. The trust company, acting as agent for voting trustees, issues shares of beneficial interest to stockholders in lieu of their deposited stock certificates. During the duration of the voting trust the trustees are in effective control of the company. The depositary trust company also is usually appointed agent to issue and transfer certificates of beneficial interest, and to pay dividends thereon.

AGENT FOR CORPORATIONS IN PROCESS OF REORGANIZATION, RECAPITALIZATION, CONSOLIDATION, OR MERGER.—These corporate transactions involve the deposit, transfer, and exchange of securities. Trust companies, with their efficient deposit facilities and their trained organizations, are well qualified to receive and hold the securities involved to effect exchanges and cash payments promptly and smoothly.

SECTION 15

INTERNATIONAL BANKING

CONTENTS

PAGE

International Payments

Foreign exchange 637
The balance of payments 637
Nature and functions of foreign exchange markets 639
Free vs. controlled currencies 640

The Foreign Exchange Market

Quotations 641
Table of foreign exchange quotations (*f.* 1) 642
Noon buying rates release (*f.* 2).. 644
Types of exchange quoted 643
Cable transfers 645
Mail transfers 645
Order for a foreign check or mail transfer (*f.* 3) 646
Sight drafts 645
Time drafts 647
Controlled exchanges 647
Future exchange transactions 648
Speculation in exchange 649
Arbitrage 650

Foreign Departments of Banks

Operations of a foreign department .. 650
New accounts section 650
Foreign tellers 651
Foreign exchange traders 651
Commercial credit division 651
Travel section 651
Foreign collections 651
Foreign bookkeepers 652
Cables 652
Securities 652

Other International Banking Institutions

Foreign branches of American banks. 652
Role of the Federal Reserve banks .. 653

PAGE

Agencies of foreign banks 654
The Export-Import Bank of Washington 654
The International Monetary Fund and The International Bank for Reconstruction and Development .. 654

Financing Foreign Trade

Risks in foreign trade financing 655
Financing by the exporter 655
Shipment on open book account 655
Consignment 656
Collection drafts 656
Customer's instructions to a bank for the collection of a draft (*f.* 4) 657
Financing by the importer 658
Payment with order 658
Partial payment in advance 658
Payment on documents 658
Financing by the exporter's bank ... 658
Advance on drafts 659
Discount of drafts 659
Refinancing bill 659
Financing by the importer's bank 659
Commercial letter of credit 659
Application and agreement for commercial letter of credit (*f.* 5) 660
A commercial letter of credit (*f.* 6) 661
Import and export letters of credit 662
Revocable and irrevocable letters of credit 662
Confirmed and unconfirmed letters of credit 662
Revolving letter of credit 663
Assignable letter of credit 663
Authority to purchase 663
Documents attached to draft 664
Traveler's letter of credit 664
A traveler's letter of credit (*f.* 7) 665
Travelers' checks 666
Traveler's check (*f.* 8) 666

SECTION 15

INTERNATIONAL BANKING

International Payments

FOREIGN EXCHANGE.—Trade, travel, and other dealings between nations create the problem of making and receiving payments across political borders. Since one country's currency is not legal tender in another country, a debtor must make payment in the currency of the creditor's country, unless the creditor has agreed to accept payment in the currency of the debtor's country.

Foreign currencies and commercial instruments stated in foreign money are called **foreign exchange.** A pound sterling note of the Bank of England is legal tender in Great Britain, but it is foreign exchange in the United States. Bank balances, bank drafts, remittances, telegraphic transfers, checks, and other payment media stated in foreign currencies constitute foreign exchange.

The Balance of Payments.—Economic transactions of a country with the rest of the world during a specified period of time, expressed in terms of the national currency, constitute the balance of international payments of that country. The balance of payments has been defined by the United States Department of Commerce as "an itemized account of the commercial and financial transactions conducted within a stated period of time, by all the people of that nation with the people of all other nations."

As the term implies, total payments or debits of a country must be balanced by an equal amount of receipts or credits. If payments to be made abroad by a country exceed its total receipts, it must meet the difference by exporting gold or borrowing abroad. In the first case it makes final settlement, while in the second case it merely postpones the settlement by promising to pay at some future date. These two methods of settling international accounts are responsible for the terms favorable or active, and unfavorable or passive, balance of payments. A country's balance of payments is called favorable when it receives gold or foreign securities on balance in settlement of its net claims against the rest of the world. It is unfavorable when it exports monetary gold or borrows abroad to pay its net obligations to other countries.

Items entering into the balance of payments are generally grouped into (a) current items, (b) capital movements, and (c) monetary gold movements. Current accounts consist of imports and exports of commodities (foreign trade), and services that are often called **invisible** imports and exports. Capital movements are subdivided into short-term and long-term. The current items indicate whether or not a country is

paying its way in its commercial transactions with the rest of the world. The capital accounts, where detailed information is available, show how, in the absence of monetary gold movements, a favorable current-payments balance has been employed, or how a deficit on current account was covered through borrowing or sales of securities abroad.

The function of gold in settling international accounts is similar to that of ordinary cash in domestic transactions. Just as every individual or business maintains a cash balance to meet obligations, so the central bank or treasury of each country holds gold or claims on gold abroad to effect international payments. Monetary gold movements are to be distinguished from shipments of gold as a commodity. When a gold-producing country like South Africa exports newly produced gold, its monetary gold reserve is not affected. In fact, such gold exports, so far as the balance of payments of the gold-shipping country is concerned, differ in no way from other commodity exports. But exports of gold exceeding current production of the metal, as well as gold exported by nongold-producing countries, constitute monetary gold movements and reduce monetary gold reserves of these countries.

Transactions entering into the balance of payments constitute the demand for and supply of foreign exchange of a country. Foreigners buy dollars, for example, to pay for following current items:

1. Exports of goods from the United States.
2. Services rendered by the United States to foreigners.
3. Interest and dividends earned by United States capital invested abroad.

Americans buy foreign exchange to pay for:

1. Imports of goods from abroad.
2. Services rendered by foreigners to the United States.
3. Interest and dividends on foreign capital invested in the United States.

Foreigners buy dollars to finance the following capital movements:

1. Purchases of American securities and real estate.
2. Purchases of foreign securities held in the United States.
3. Amortization and repayment of dollar loans.
4. Withdrawal of dollar balances from their banks.
5. Gold exports from the United States.

Americans buy foreign exchange to finance:

1. Investment of American capital abroad.
2. Repurchase of American securities held abroad.
3. Amortization and repayment of loans contracted by Americans in other countries.
4. Withdrawal by foreigners of their balances with American banks.
5. Gold imports into the United States.

Payments for services rendered by one country to others include tourist expenditures, immigrant remittances, bills for freight, travel and communications, insurance premiums, charitable contributions, gifts and bequests, commissions, advertising purchased, rents, royalties, and bills for electric power transmitted across national borders. All these items cause demand for and supply of foreign exchange.

When an American visits Italy, he buys transportation, hotel accommodations, food, amusement, and personal services. These purchases

constitute Italian exports (invisible) to the United States. The American tourist pays either with lire purchased in the United States or with American currency, i.e., actual cash or travelers' checks and other dollar credit instruments. In the latter case, the tourist creates a demand for lire and a supply of dollars in Italy when he exchanges his currency or credit instruments into lire.

NATURE AND FUNCTIONS OF FOREIGN EXCHANGE MARKETS.—A foreign exchange market is a place where foreign exchange is bought and sold in large amounts. In continental European financial centers, foreign exchange trading is conducted on the **bourses** (stock exchanges). In New York and London there is no foreign exchange market place in the literal sense. Business is transacted over the telephone—private wires binding together the important dealers and brokers—and the trading machinery is so efficient that dealers and brokers readily learn demand and supply conditions and quotations for a foreign currency at any time.

The leading foreign exchange markets are located in the international financial centers such as New York, London, Paris, Amsterdam, and Zurich. In addition, many large cities throughout the world have markets for dealing in foreign exchange. Although widely separated by land and water, these markets are in constant communication with each other by cable, telegraph, telephone, and radio through networks of branches and correspondents maintained by large banks and foreign exchange dealers. Modern communication facilities have practically fused all financial centers into one great foreign exchange market.

The principal foreign exchange market in the United States is in New York. Quotations for foreign currencies established there and listed in the daily newspapers provide the basis for foreign exchange transactions in smaller markets throughout the country, such as Boston, Chicago, St. Louis, San Francisco, New Orleans, and Seattle. Owing to the fact that the business day in Europe begins several hours before the American business day, foreign exchange dealers here have the advantage of knowing what developments have taken place in the European markets before they actually begin trading. Rates prevailing in foreign markets have an important bearing on those quoted by New York traders.

The foreign exchange business of the New York market is transacted by the large commercial banks, agencies and subsidiaries of foreign banks, some investment banking firms, specialized foreign exchange dealers and brokers, and several small banks which specialize in selling immigrant remittances. By far the most important segment of the market is that comprising the commercial banks. They have the resources, trained personnel, and facilities for carrying out virtually every type of international financial transaction. When the world is politically and economically at peace and trade between nations is not unduly impeded by governmental regulations, when people are not prohibited or restricted in sending funds abroad, when tourists can travel all over the globe, these banks have a continuous influx and outgo of foreign exchange which increase and decrease, respectively, the balances they maintain with banks in foreign financial centers. They acquire daily foreign exchange in whatever amount and form offered, such as interest coupons and dividend checks stated in foreign currencies, foreign drafts and remittances, and foreign currency notes, which they forward to

branches and correspondents abroad for collection and credit to their accounts. The large commercial banks are continually selling, against their balances abroad, foreign exchange in the amounts and forms demanded, such as drafts, cable transfers, remittances, travelers' and commercial letters of credit, and foreign currency notes. They must thus maintain in practically every country bank balances in amounts commensurate with the volume of business transacted with that country and with due regard to degree of stability of that country's currency. These balances may fluctuate relatively little from day to day, since purchases and sales of foreign exchange tend to counterbalance each other.

Foreign exchange brokers act as intermediaries between buyers and sellers. They are in constant telephonic communication with large dealers in foreign exchange, and bring bids and offers together. Receiving an offer of exchange at a stated price, the broker seeks a bid at a slightly higher figure; on receiving a bid at a certain rate, he seeks an offer at a slightly lower rate. In either case the seller makes delivery directly to the buyer at the higher rate, and pays the difference to the broker as his commission.

FREE VS. CONTROLLED CURRENCIES.—When the currency and other media of payments of a country may be used without restriction by citizens and foreigners in transactions entering the balance of payments, such a currency is termed **free.** (The term "currency" as used here includes bank deposits as well as paper money and coins.) Residents of a country may use a free currency to pay for imports of goods and services, to make investments abroad, to transfer funds to other countries for charitable contributions, gifts, bequests, and other purposes. Foreigners owning free currency balances may employ them for making investments in and importing from that country, or may sell such balances to residents or buyers in third countries. Countries whose international payments and receipts are in approximate equilibrium, or that hold gold or foreign exchange reserves adequate to cover deficits in their international accounts, have an assured ability to maintain free and stable currencies. When a country's total payments to the rest of the world exceed its aggregate receipts, when it has little gold and foreign exchange or does not want to part with gold owned, and when it cannot obtain foreign credits, the exchange value of its currency, i.e., the price of the currency in terms of other currencies, will tend to decline because the supply of that currency will exceed the demand for it. At this point the government is confronted with the alternatives of permitting its currency to depreciate and retaining a free currency (freedom of transfer), or abandoning the free transfer of currency, i.e., instituting **exchange control** with the object of maintaining a stable exchange rate.

Exchange control is exercised either by the government, the central bank, or a specially created authority. It consists of legal and technical measures designed to limit the demand for and increase the supply of foreign exchange, thus regulating the currency's quotation. It may be provided that no payments can be made abroad without approval of the controlling authority, which apportions foreign exchange to make payments for approved imports and certain expenditures abroad that are deemed necessary. Importation and exportation of securities and of domestic and foreign currency may be restricted or prohibited. Resi-

dents may be required by law to sell at an official rate foreign exchange derived from exports and services performed abroad, and to put at the disposal of the authority bank balances abroad, foreign bills, currencies, and securities held at home and abroad, for which they are paid in domestic currency. Foreigners may be allowed to use balances to buy certain types of commodities for export, or may be limited to purchasing services with them and making specified types of investments within the country.

The Foreign Exchange Market

QUOTATIONS.—The price of a country's monetary unit, expressed in the currency of another country, is called its rate of exchange. There are two generally used methods of quoting exchange rates: (a) the direct method, stating the number of units of domestic currency that will buy a unit, or multiple thereof, of the foreign currency; and (b) the indirect method, stating the number of units of the foreign currency that will buy a unit of the domestic currency. The New York exchange market quotes foreign currencies by the direct method, as commodities are quoted, namely, so many dollars or cents per one or 100 units of the foreign currency. In London, most exchange rates are quoted by the indirect method, so many units of the foreign currency for one pound sterling. For example, Swiss exchange may be quoted in New York at 22.9 and in London at 12.23, which would mean that 1 Swiss franc costs 22.9¢ in New York, while in London 12.23 Swiss francs would buy £1. Consequently in London the exchange dealers' rule is "buy high and sell low," the reverse of the principle followed in commodity trading.

London adopted the indirect quotation method because the pound sterling, as the monetary unit of highest value, is exchangeable for multiples of the currency of other countries, and because this method makes possible quick comparison between London exchange rates and foreign rates on London. Thus, when New York quotes £1 = $2.79 and London quotes $2.81 = £1 (instead of the direct method $1 = 7.1 shillings), no calculation is required to compare the two rates.

Where several countries use the same monetary unit, as do Great Britain, South Africa, Australia, and New Zealand, or the United States and Canada, exchange rates may be quoted in percentage deviations from par. Australian pounds were once quoted at so many per cent discount from the pound sterling.

Exchange rates fluctuate, like prices of other commodities, in response to demand and supply changes. (See Fig. 1.) Under the gold standard, the range of such fluctuations is restricted by the **gold points,** since a currency on the gold standard is exchangeable for a fixed quantity of gold. Thus, the United States dollar contains 15 5/21 grains of gold, 9/10 fine. The dollar's fluctuations are limited because at the **upper gold point** it becomes profitable to import gold, and at the **lower gold point** it is profitable to export gold.

When another country adheres to the gold standard and permits free exportation of gold, the value of its currency in terms of the dollar will not rise beyond mint parity plus the cost of exporting gold to it (the **gold export point**), nor decline below parity less the cost of import-

FOREIGN EXCHANGE

Range of Rates, Sight Exchange

	High.	Low.	Final.	Wednesday's Final.
LONDON	$4.90⅝	$4.89⅛	$4.90⅜	$4.89⅞
PARIS	4.65⅛	4.66	4.66⅛	4.65⅞
BERLIN	40.24	40.23½	40.24	40.23½
ROME	5.26⅛	5.26⅜	5.26⅛	5.26⅛
AMST'D'M	.54.47	54.41	54.46	54.41
BRUSSELS	.16.92¼	16.91¼	16.91¾	16.92
SWITZ'L'D	.22.99	22.98	22.98¾	22.98¾
CANADA	.100.12	100.06	100.12	100.06

Ninety-Day Rates (Points)

LONDON—1/32c disc., previous day 1/32c disc.
PARIS—7⅛ disc., previous day 6⅝c disc.
AMSTERDAM—21 disc., prev. day 20 disc.
SWITZERL'D—1 disc., previous day 1 disc.

Closing Rates

Quotation on sterling represents dollars and decimals of a dollar; all others represent cents and decimals of a cent.

Parity of the exchanges in the following tabulation is based on the new gold value of the United States dollar as established by Presidential proclamation on Jan. 31, 1934.

Europe

	Thurs-day.	Wednes-day.	Week Ago.	Year Ago.
STERLING—Par $8.2397 per pound.				
Demand	$4.90⅜	$4.89⅞	$4.90⅜	$4.92¼
Cables	4.90⅝	4.89⅞	4.90⅜	4.92¼
Com., 60 d.	4.89¼	4.88⅝	4.89⅛	4.91⅝
Com., 90 d.	4.88⅞	4.88⅜	4.89⅛	4.91⅛
STERLING—In French francs:	105 9-64	105 9-64	105 9-64	74 29-64
AUSTRALIA—Par $8.2397 per pound.				
Demand	3.92⅜	3.91⅞	3.92⅜	3.94¼
Cables	3.92⅝	3.91⅞	3.92⅝	3.94¼
NEW ZEALAND—Par $8.2397 per pound.				
Demand	3.95⅜	3.94⅞	3.95¼	3.97⅛
Cables	3.95⅜	3.94⅞	3.95¼	3.97⅛
SOUTH AFRICA—Par $8.2397 per pound.				
Demand	4.90⅜	4.89⅞	4.90⅛	4.92¼
Cables	4.90⅜	4.89⅞	4.90⅛	4.92¼
FRANCE—Parity changed Sept. 26, 1936; new value not yet determined.				
Demand	4.66½	4.65⅞	4.66½	6.61⅞
Cables	4.66½	4.65⅞	4.66½	6.61⅞
GERMANY—Par 40.3325 cents per mark.				
Demand	40.24	40.23½	40.24	40.24
Cables	40.24	40.23½	40.24	40.24
Reg. com'l.	20.25	20.50	20.80	21.75
Travel	21.50	21.60	21.90	24.00
ITALY—Par 5.2631 cents per lira (Oct. 5, 1936).				
Demand	5.26½	5.26½	5.26½	8.09
Cables	5.26½	5.26½	5.26½	8.09
BELGIUM—Par 16.95 cents per belga.				
Demand	16.91¾	16.92	16.92½	16.88
Cables	16.91¾	16.92	16.92½	1688
AUSTRIA—Par 23.8244 cents per schilling.				
Demand	18.72	18.72	18.72	18.83
Cables	18.72	18.72	18.72	18.83
NORWAY—Par 45.3740 cents per krone.				
Demand	24.64	24.63	24.65	24.77
Cables	24.64	24.63	24.65	24.77
POLAND—Par 18.9938 cents per zloty.				
Demand	18.90	18.89	18.89	18.92
Cables	18.90	18.89	18.89	18.92
PORTUGAL—Par 7.4831 cents per escudo.				
Demand	4.47	4.47	4.47	4.50
Cables	4.48	4.48	4.48	4.51
RUMANIA—Par 1.0127 cents per leu.				
Demand	.75	.75	.75	.85
Cables	.75	.75	.75	.85
SPAIN—Par 32.6693 cents per peseta.				
Cables	*	*	*	13.71½
SWEDEN—Par 45.3740 cents per krona.				
Demand	.25.29	25.27	25.30	25.42
Cables	.25.29	25.27	25.30	25.42
SWITZERLAND—Parity changed Sept. 28, 1936; new value not yet determined.				
Demand	.22.98¾	22.98¾	22.99¼	32.49½
Cables	.22.98¾	22.98¾	22.99¼	32.49½
YUGOSLAVIA—Par 2.0820 cents per dinar.				
Demand	2.33	2.33	2.33	2.30
Cables	2.33	2.33	2.33	2.30

Canada

MONTREAL—Par $1.693125 per Canadian dollar.				
Demand	.100.12	100.06	100.00	98.96

Mexico

MEXICO, D. F.—Par 84.40 cents per gold peso.				
Demand	.27.88	27.88	27.88	27.85

Far East

CHINA—Cents per silver dollar for Hongkong and Shanghai.				
Hongkong:				
Demand	.30.60	30.60	30.65	32.24
Cables	.30.65	30.65	30.70	32.30
Shanghai:				
Demand	.29.75	29.75	29.80	29.74
Cables	.29.80	29.80	29.85	29.80
INDIA—Calcutta: 61.7978 cents per rupee.				
Demand	.37.04	37.00	37.00	37.20
Cables	.37.09	37.06	37.05	37.26
PHILIPPINE ISLANDS—Manila: 50 cents per silver peso.				Par
Cables	.50.35	50.35	50.35	50.00
JAVA—Par 68.06 cents per florin.				
Cables	.54.78	54.73	54.76	68.18
JAPAN—Par 84.3957 cents per yen.				
Demand	.28.50	28.50	28.56	28.72
Cables	.28.55	28.55	28.61	28.78
STRAITS SETTLEMENTS—Par 96.13 cents per dollar.				
Cables	.57.62	57.62	57.65	57.75

South America

ARGENTINA—Par 71.8724 cents per Argentine paper peso.				
Inland	.30.15	29.00	28.70	27.35
BRAZIL—Par 20.2550 cents per paper milreis.				
Inland	6.05	6.05	6.00	5.55
CHILE—Par 20.5990 cents per gold peso.				
Cables(off'l)	5.19	5.19	5.19	5.19
COLOMBIA—Par $1.6479 per gold peso.				
Cables	.56.75	56.75	56.75	51.75
PERU—Par 47.40 cents per sol.				
Cables	.125.25	25.25	25.25	25.25
URUGUAY—Par $1.7510 per gold peso.				
Inland	.57.00	57.00	56.75	46.00

†Nominal.
*Rates not available.

FIG. 1. Table of Foreign Exchange Quotations as Appearing in a Daily Newspaper

ing gold from it (the **gold import point**). The cost of shipping gold includes packing and cartage to and from terminals or piers; transportation by land, water, or air; insurance; loss of interest while the gold is in transit, and the assay office commission.

Whenever exchanges of gold standard currencies move beyond the gold points, banks will buy the currency which has depreciated below the gold point for their own account, convert it into gold, ship the gold and convert the metal back into their own currency to produce a profit. The purchases of the depreciated currency tend to bring back the exchange rate within the gold points, and the gold shipments will continue until this takes place. The profit motive can safely be relied upon to stimulate gold shipments, and thus to maintain exchange stability within the gold points.

The foreign exchange rates quoted daily in the newspapers are the rates at which actual transactions in large, round amounts took place among foreign exchange dealers ("open market trading"), and not rates at which dealers do business with individual customers ("commercial business"). The rate quoted to customers may be higher or lower than the published rate, and the difference—always in favor of the dealer—reimburses the dealer for his expenses and gives him his profit. The difference between open market and commercial rates varies with the size of the transaction; the larger the amount involved, the smaller is the deviation from the basic rate, and vice versa. When demand for foreign exchange, say for London exchange in the New York market, exceeds the supply, dealers will bid up the price of the pound sterling to induce additional sales by holders of London balances. Should the rate rise above par, it is said that London exchange is quoted at a "premium." On the other hand, when the supply of London funds in New York exceeds the demand dealers will drop the rate to bring out buyers. When the rate goes below par, it is said that the British exchange is at a "discount."

In the assessment of tariff duties on imported merchandise, rates of exchange on foreign currencies are used that are gathered at noon daily by the Foreign Department of the Federal Reserve Bank of New York and are certified to the Treasury Department. These official **noon buying rates** are released in the form shown in Fig. 2.

TYPES OF EXCHANGE QUOTED.—The bulk of foreign exchange dealings is in credit instruments. Transactions in actual currency notes are only for small amounts across the counter, and are of very little importance in the foreign exchange market.

Rates at which a bank or foreign exchange dealer buys and sells foreign currency notes are based on the quoted rates, but take into account (a) the amount involved, (b) loss of interest while notes remain in the bank or in transit to and from the foreign countries, (c) the cost of shipment and insurance, and (d) a service charge. Since banks and foreign exchange dealers as a rule do not trade among themselves in foreign currency notes, there are no uniform quotations. Rates may and do vary from bank to bank, depending on such considerations as the amounts of foreign currency notes at disposal of the particular bank. Banks avoid the risk involved in holding large amounts of foreign currency by selling cable transfers or drafts and shipping the notes to the country of origin to cover such sales.

FEDERAL RESERVE BANK
OF NEW YORK

Date January 28, 19...

The Honorable,
The Secretary of the Treasury.

Sir:

In pursuance of the provisions of Section 522 of the Tariff Act of 1930, dealing with the conversion of foreign currency for the purpose of the assessment and collection of duties upon merchandise imported into the United States, we have ascertained and hereby certify to you that the buying rates in the New York Market at noon today for cable transfers payable in the foreign currencies are as shown below.

Respectfully,
per pro
Foreign Department.

VALUES OF FOREIGN CURRENCIES

Country	Monetary Unit	Noon Buying Rate for Cable Transfers in N. Y. Value in U. S. Dollars	Remarks
Argentina	Peso	.200000* Basic	
"	"	.133333* Preferential	
"	"	.0717000* Free	
Australia	Pound	2.223250	
Belgium	Franc	.0198375	
Brazil	Cruzeiro	.0544060	
British Malaysia	Malayan Dollar	.326600	
Canada	Dollar	1.002421	
Ceylon	Rupee	.208375	
Denmark	Krone	.144916*	
Finland	Markka	.00435401*	
France (Metropolitan)	Franc	.00285625	* Nominal
Germany	Deutsche Mark	.238379*	
India	Rupee	.208683	
Ireland	Pound	2.803750*	
Mexico	Peso	.115640	
Netherlands	Guilder	.263050	
New Zealand	Pound	2.760106	
Norway	Krone	.140154*	
Philippine Islands	Peso	.496766*	
Portugal	Escudo	.0348750	
Sweden	Krona	.193269*	
Switzerland	Franc	.229800	
Union of South Africa	Pound	2.775973	
United Kingdom	Pound Sterling	2.787812	
Uruguay	Peso	.658327* (1) } Application	
"	"	.561797* (2) } depends upon	
"	"	.425531* (3) } type of merchandise	

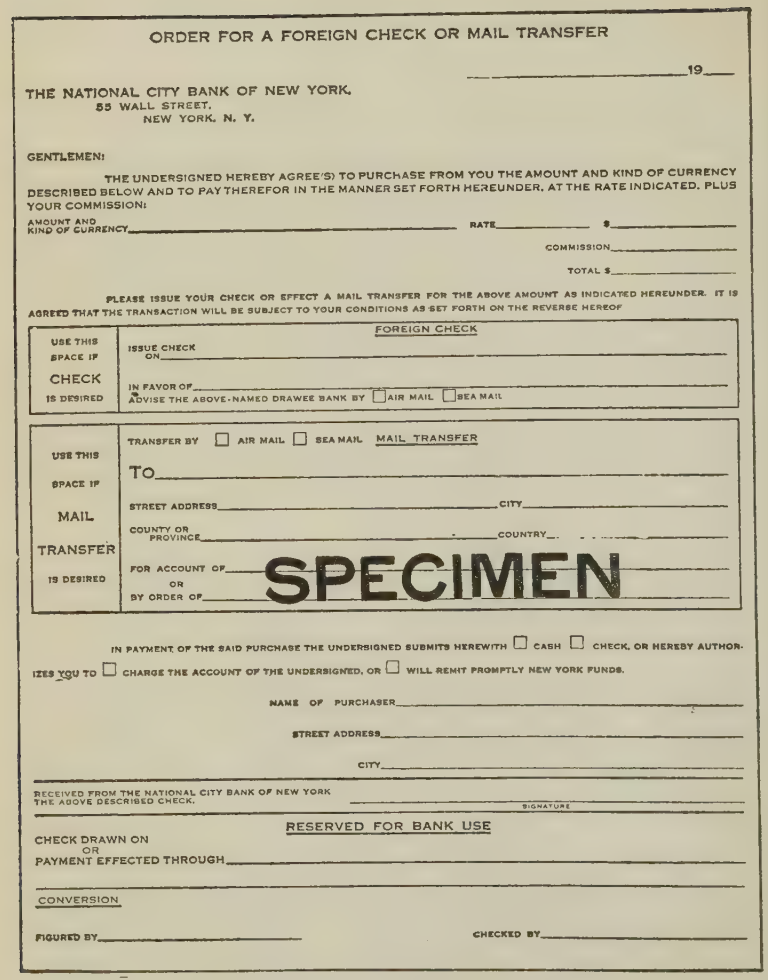
FIG. 2. Noon Buying Rates Release

Credit instruments used in foreign exchange transactions may be divided into four main types: (a) cable transfers, (b) mail transfers, (c) sight drafts, and (d) time drafts. Exchange rates quoted in the open market and published in the daily newspapers are, as a rule, rates for cable transfers.

Cable Transfers.—A cable transfer (telegraphic transfer or "T.T.") is an order telegraphed by the seller of the exchange to a party abroad (usually a bank located nearest to the recipient of the funds), instructing him to pay immediately out of the seller's account a specified amount of foreign currency to the party named in the order (beneficiary), for account of the buyer. It is essentially a cash transaction; the buyer pays to the seller the agreed-upon amount in domestic funds and the seller on the same day, by cable, orders payment abroad. The seller receives domestic funds in cash and the buyer receives the funds abroad, usually on the same day or on the following or second business day if distance, available cable facilities, and time difference occasion some delay. Although the seller often retains the foreign funds for one or two days after he has received the equivalent in domestic funds, interest is not considered in setting the quotation. The cable rate includes the cost of the cable for transactions above a certain minimum amount; for smaller amounts the cost of the cable will be charged to the buyer as a separate item. Cables are sent in prearranged codes to reduce the cost, to assure secrecy, and to protect the parties against fraud. All cable transactions for a day with a particular correspondent will be sent in one message at the end of the day. The cable rate is generally slightly higher than the rate for other types of exchange.

Mail Transfers.—In case of mail transfer, the bank selling the foreign exchange instructs its branch or correspondent abroad by mail to make payment to the beneficiary and obtain a receipt therefor. Since the bank receives the dollar equivalent at the time of the sale, while its account abroad is charged only at a later date depending on the distance, the bank earns interest on its foreign currency balance during the time it takes the mail transfer to reach its destination. Consequently mail transfers sell at lower rates than cable transfers. The use of air mail reduces the time required to transfer funds by mail and so narrows the differences between cable and mail transfer rates. The buyer of a mail or cable transfer receives no written instrument, but merely a confirmation of the transaction. Cable and mail transfers are nonnegotiable. (See Fig. 3.)

Sight Drafts.—The most commonly used type of foreign exchange is the bill of exchange or draft. A draft is a written order issued by the drawer to a second party (the drawee) to pay to the order of a third party (payee) a certain sum of money on a specified date, or at a future ascertainable date. Bills of exchange are employed in settling foreign obligations mainly because they are negotiable, i.e., their ownership can be readily transferred by endorsement. Bills of exchange are classified on the basis of maturity dates into (a) sight drafts and (b) time drafts. When the drawee of a sight draft is a bank, the instrument is called a check. A foreign exchange sight draft is a check, stated in foreign currency, on a foreign bank, drawn against the balance maintained in that



ORDER FOR A FOREIGN CHECK OR MAIL TRANSFER

_____ 19____

THE NATIONAL CITY BANK OF NEW YORK,
55 WALL STREET,
NEW YORK, N. Y.

GENTLEMEN:

THE UNDERSIGNED HEREBY AGREE(S) TO PURCHASE FROM YOU THE AMOUNT AND KIND OF CURRENCY DESCRIBED BELOW AND TO PAY THEREFOR IN THE MANNER SET FORTH HEREUNDER, AT THE RATE INDICATED, PLUS YOUR COMMISSION:

AMOUNT AND KIND OF CURRENCY _____ RATE _____ $ _____

COMMISSION _____

TOTAL $ _____

PLEASE ISSUE YOUR CHECK OR EFFECT A MAIL TRANSFER FOR THE ABOVE AMOUNT AS INDICATED HEREUNDER. IT IS AGREED THAT THE TRANSACTION WILL BE SUBJECT TO YOUR CONDITIONS AS SET FORTH ON THE REVERSE HEREOF

USE THIS SPACE IF CHECK IS DESIRED

FOREIGN CHECK

ISSUE CHECK ON _____

IN FAVOR OF _____

ADVISE THE ABOVE-NAMED DRAWEE BANK BY ☐ AIR MAIL ☐ SEA MAIL

USE THIS SPACE IF MAIL TRANSFER IS DESIRED

TRANSFER BY ☐ AIR MAIL ☐ SEA MAIL MAIL TRANSFER

TO _____

STREET ADDRESS _____ CITY _____

COUNTY OR PROVINCE _____ COUNTRY _____

FOR ACCOUNT OF _____

OR

BY ORDER OF _____

SPECIMEN

IN PAYMENT OF THE SAID PURCHASE THE UNDERSIGNED SUBMITS HEREWITH ☐ CASH ☐ CHECK, OR HEREBY AUTHORIZES YOU TO ☐ CHARGE THE ACCOUNT OF THE UNDERSIGNED, OR ☐ WILL REMIT PROMPTLY NEW YORK FUNDS.

NAME OF PURCHASER _____

STREET ADDRESS _____

CITY _____

RECEIVED FROM THE NATIONAL CITY BANK OF NEW YORK THE ABOVE DESCRIBED CHECK. _____ SIGNATURE

RESERVED FOR BANK USE

CHECK DRAWN ON
OR
PAYMENT EFFECTED THROUGH _____

CONVERSION

FIGURED BY _____ CHECKED BY _____

FIG. 3. Order for a Foreign Check or Mail Transfer

bank by the seller of the draft. The buyer of the draft mails it to the payee.

The buyer of a sight draft must arrange his purchase in time to allow the check to reach the payee on or before the date his obligation is due, if he wants to meet it promptly. The rate for sight drafts is lower than that for cable transfers, the spread between the two usually equalling the amount of interest that would be allowed, at the rate prevailing in the country on which the draft is drawn, for the period that the draft is in transit.

Time Drafts.—A time draft, also called long exchange or a long bill, is payable on a specified future date, usually after 30, 60, 90, or 120 days. Normally, the rate for time drafts, the "long rate," is lower than that for sight drafts, since the drawer's account abroad will not be charged until the draft is presented at its maturity date. The long rate is usually equal to the sight rate less interest at the rate prevailing in the center on which the bill is drawn. Time drafts of long tenor are thus quoted lower than those of shorter term.

The demand for and supply of time drafts arise mainly in connection with foreign trade transactions. A New York importer of goods from France, obligated by the terms of his contract to pay on receipt of the bill of lading with a 30-day draft on a bank in France, will buy such a draft from his bank. Exporters as a general practice draw drafts on the importer or his bank payable so many days after sight, usually in the currency of the country of the party on whom the draft is drawn. When presented to the importer, the latter accepts it by writing or stamping across the face of the bill the word "Accepted," the date of acceptance, and usually the bank at which it will be paid, followed by his signature. By this act the bill becomes an **acceptance,** and the importer (drawee) assumes liability as acceptor. The exporter, if he elects, may hold the acceptance until maturity, thereby earning the interest it bears. In that event, the acceptance is customarily left for collection with the bank which presented the draft for acceptance (the accepting agent). This is rarely done, however, because of possible loss from a decline in the exchange rate of the currency in which the acceptance is stated. The exporter prefers to sell the draft immediately to a bank or foreign exchange dealer.

CONTROLLED EXCHANGES.—When a currency is not freely convertible into a fixed quantity of gold or exchangeable into other currencies at fixed rates, and no foreign exchange control is exercised, its exchange rate will fluctuate with the demand and supply, without upper or lower limits. The exchange rate tends to reflect the international financial position of the country, although speculation may exaggerate swings in quotations. Since currency stability, at least for limited periods of time, is necessary to the orderly conduct of business, international and domestic, governments and central banks take steps to minimize fluctuations through foreign exchange control.

An official foreign exchange rate may be established and maintained by apportioning available exchange in accordance with a scale of relative necessity. Since only a part of the demand for foreign exchange may be satisfied at the official rate, this encourages outside dealings at a "free" rate, often of a black market character. But exchange restrictions may

specifically permit exporters to retain part of the exchange they receive and sell it in a free market at rates above the official rate. The Brazilian exchange control system authorized three types of exchange: official exchange, free market exchange, and special free market exchange. The official market was reserved for the Bank of Brazil (acting for the government), to which 30% of the face amount of all export bills had to be sold at the official buying rate (1 cruzeiro = 6.06¢, U. S. currency). Exchange so acquired was used to meet government requirements. The balance of export bills could be sold in the free exchange market in which all banks, including the Bank of Brazil, were authorized to operate. Exchange to pay for authorized imports, freight, insurance, and commission charges on exports could be obtained in this market. In the special free exchange market, foreign exchange brought in by tourists in the form of travelers' letters of credit and checks and paper currency was sold to the banks. This exchange could be used by the banks only for the sale of drafts, letters of credit, and foreign paper currency to persons authorized by the Bank of Brazil to buy exchange for travel and maintenance abroad. Exchange derived from imports of capital also was sold in this market, and the acquiring banks could use it for the transfer abroad of capital, interest, and dividends and royalties.

Beginning with the Austrian financial crisis of May, 1931, and particularly after the abandonment of the gold standard by Great Britain on September 21, 1931, practically all countries instituted foreign exchange controls. The volume of trading in foreign exchange in financial centers decreased greatly, and transactions became very complicated, owing to the multiplicity and frequent changes of regulations.

FUTURE EXCHANGE TRANSACTIONS.—In a spot exchange transaction, performance takes place immediately in accordance with the custom of the market. A "future" or "forward" exchange transaction is a contract for the purchase and sale of foreign exchange at an agreed rate, delivery and payment to be effected at a stipulated future date. Where both parties to the forward exchange contract are banks or exchange dealers, no money passes between them until the date of consummation of the contract. They merely exchange written contracts. Where one of the parties is not a bank, or in transactions with financially weak dealers, the bank usually requires a cash margin as security for the performance of the contract.

Forward exchange protects business men against the risk of loss from fluctuations in exchange rates, in dealings with foreign countries. An exporter in the United States who sells goods abroad in terms of a foreign currency on 3 months' credit, and calculates the sales price at the current dollar rate for the foreign currency, can guard himself ("hedge") against loss from a decline in the exchange rate by selling the foreign exchange immediately for delivery 3 months hence. Similarly, an importer in the United States who buys merchandise abroad in terms of a foreign currency on 3 months' credit can determine immediately the dollar cost of the commodities to him by purchasing at once future exchange, for delivery at the time payment will be due. The importer could also protect himself against currency fluctuation by buying a cable transfer for the required amount and lending out the foreign funds for 3 months. He will obviously employ the cheapest method.

Not only exporters and importers but also anyone dealing with foreign countries and desiring to avoid speculation in foreign exchange should hedge by buying or selling forward exchange. Thus, an American who intends to invest funds temporarily in Great Britain can, simultaneously with the purchase of spot sterling, sell future sterling, the delivery to coincide with the date of the liquidation of the investment. This combination of a spot and forward transaction is called a **swap** operation, the spot exchange being "swapped" against forward exchange. Swap operations are double transactions consisting of a simultaneous purchase of spot and sale of future exchange, to avoid loss from possible depreciation of the foreign currency in the interim.

The forward exchange market, composed of banks and dealers, absorbs the risk of exchange fluctuations in international transactions. While their purchases and sales tend to cancel out to a large extent, banks and dealers must take a position when the supply of forward exchange in a currency exceeds the demand, or vice versa. The banks and dealers who acquire a net long forward exchange position can hedge it, in turn, by borrowing an equal amount in foreign currency abroad, repayable when the forward contracts mature, and selling the exchange that represents the proceeds of the loan at the spot rate. The foreign exchange to be received from sellers of futures will be used to repay the foreign currency loan. The bank pays interest on the foreign currency loan, but earns interest on the domestic funds realized from the spot sale of the borrowed exchange. Any difference in interest rates in the two financial centers is taken into consideration in quoting the forward exchange rate. By the same token, when a bank sells forward exchange on balance, it can avoid the exchange risk by buying spot exchange simultaneously and lending the money abroad for a period terminating on the delivery date of the forward exchange, when repayment of the loan provides the exchange to cover the net forward commitment.

Banks obtain forward exchange also by buying time bills of a maturity coinciding with the delivery date of the forward exchange. When demand for spot exchange of an individual currency increases, the banks can discount time bills in the foreign financial center and sell the proceeds as spot exchange.

Rates for future exchange vary with supply and demand, as in the case of spot exchange. Future exchange may be quoted at a premium over spot. But when foreign exchange dealers and speculators expect a currency to depreciate, the forward rate is quoted below the spot rate, the discount reflecting speculative sales and compensation for the special risk assumed by the buyer. It is obvious that exchange restrictions in a currency which make spot transactions impossible automatically eliminate the forward market in that currency.

SPECULATION IN EXCHANGE.—An important factor influencing the foreign exchange market is speculation by dealers and brokers who go **long** of exchange when they expect a rise in the market, and sell **short** when in their judgment rates will go lower. Under normal conditions speculation in the foreign exchange market is very risky, the margin of profit being so small that only expert traders attempt to match their judgment against the trend of the market. When currencies fluctuate more widely, speculation in exchange attracts a large outside public following.

Arbitrage.—Banks and others who deal in foreign exchange must keep themselves advised as to rate fluctuations in all the money markets of the world. With this information, they are frequently in position to arbitrage; i.e., to buy exchange in one market and sell it in another to profit from price discrepancies. Sharp traders may buy and sell in several money centers simultaneously. They may buy or sell cable exchange in one or more countries against the sale or purchase of a different type of exchange in other countries.

Because of the need for quick action and expert knowledge and the usual small margin of profit, arbitrage operations are generally confined to large banks and foreign exchange dealers having branches or correspondents in all of the principal money centers of the world. The economic effect of arbitrage is to keep the major foreign exchange markets of the world in alignment with each other, where exchange restrictions do not interfere.

Foreign Departments of Banks

OPERATIONS OF A FOREIGN DEPARTMENT.—Foreign departments have been developed principally by banks located in large seaports and financial and manufacturing centers. Most banks in the United States handle foreign business that may come to them through large metropolitan correspondent banks. The latter in turn are represented by their own branches, affiliates, and correspondent banks in every important city of the world.

The foreign department of a bank transacts three main types of business: (1) trading in foreign exchange; (2) financing foreign trade, including collection of drafts, issuance of letters of credit, travelers' letters of credit, and travelers' checks; and (3) services, such as making available to customers economic data on foreign countries, facts about their laws and trade customs, and credit information about foreign firms and individuals. As a rule the banks make no charge for these services, except for actual expense incurred in obtaining specific information.

The profit realized on exchange trading usually results from the difference between the prices at which the bank buys and sells foreign exchange, and from arbitrage between different types of exchange or between different markets. Income derived from transactions in the second type is in the form of commissions charged customers. These commissions may be shared with the bank's foreign correspondents.

The **organization of the foreign department** varies from bank to bank, depending on the volume of business and functional and geographical specialization. The foreign department of a large New York City bank may be composed of the divisions or sections whose work is outlined in the following discussion.

NEW ACCOUNTS SECTION.—This section attends to the business of obtaining for the bank accounts of foreign banks and customers and of establishing correspondent relations with banks abroad. It keeps records of all account arrangements, including required minimum balances, service charges, and interest; and analyzes the profitability of the accounts. It also determines the routing of collection items payable

abroad and passes special instructions received from depositors to the operating divisions of the bank.

FOREIGN TELLERS.—All payments and transfers ordered by cable, draft, mail, and over the window are effected by this section. If, for example, a foreign bank orders a payment made out of its credit balance to a firm in the United States, this section will either send its check (cashier's, treasurer's, or manager's check) to the American concern or instruct its correspondent located in the city of the payee to effect payment. If the payee maintains an account with the bank, a foreign teller will credit his account and send him a notice of credit. Foreign tellers also receive and acknowledge payments to the credit of accounts of foreign depositors; and in some banks buy and sell foreign currency notes and coins at rates approved by the Foreign Exchange Traders division.

FOREIGN EXCHANGE TRADERS.—This division buys and sells foreign exchange in all forms and keeps a record of the bank's foreign exchange position. It also undertakes arbitrage operations and concludes future exchange contracts and swap transactions.

COMMERCIAL CREDIT DIVISION.—This division contains the following sections: (a) foreign credit, (b) import letter of credit, (c) export letter of credit, and (d) loans. The foreign credit section maintains up-to-date credit files of foreign accounts; obtains credit information for the bank's customers (mainly for exporters who want to know the credit standing of foreign importers); and submits periodically to the proper officials of the bank credit summaries of borrowing foreign banks and customers. It also answers credit inquiries from other banks regarding foreign accounts.

The import letter of credit section opens letters of credit for American importers of goods. It keeps records of legal requirements of the various countries relating to the shipment of goods and making payments. It maintains a tickler system to assure payment at maturity of acceptances and other credit instruments under letters of credit.

Exports of American goods to foreign countries are often financed through export letters of credit which originate in the countries of the importers. The export letter of credit section examines the shipping documents and drafts presented by American exporters under letters of credit. In many banks import and export letters of credit are handled by one section, which also accepts drafts drawn under letters of credit.

The loan section handles loans to foreign customers and also makes advances against commodities stored in the United States for shipment abroad.

TRAVEL SECTION.—This section issues travelers' letters of credit in both dollars and foreign currencies, and dollar travelers' checks. It makes arrangements for the purchase of steamship, railroad, and air transportation for customers, and attends to other needs of the traveling public. It supplies domestic correspondent banks with letters of credit, and keeps records of travelers' letters of credit issued on, or for, the account of the bank by foreign and domestic correspondent banks.

FOREIGN COLLECTIONS.—This section handles the collection of foreign credit instruments. It is usually divided into incoming and

outgoing collections. Incoming items are those received by the bank from abroad for collection in the United States; outgoing items are sent by the bank to its foreign branches or correspondents for collection abroad. Items that require special treatment, such as documentary bills, and those that cannot be handled conveniently by the foreign tellers are turned over to **foreign collections.** This section also takes care of consignment shipments to be sold in accordance with the instructions of the foreign customers.

Outgoing collections consist mostly of credit instruments arising from American exports, and to a smaller extent of coupons payable abroad. A careful record is kept of all outgoing items, and nonreceipt of funds in due time is followed up by tracers. American exporters occasionally request the banks to make loans to them against the bills forwarded for collection abroad.

FOREIGN BOOKKEEPERS.—This section is divided into "vostro" or "their," "nostro" or "our," and general bookkeeping. The vostro books record the balances which foreign correspondents and customers maintain with the bank, while the nostro books record the balances which the bank keeps with its foreign correspondents in foreign currencies. The general books record all assets and liabilities of the foreign department.

CABLES.—This section has charge of incoming and outgoing cables, radiograms, and telegrams. It allocates costs of messages to the several divisions of the bank and customer accounts. It traces cables if no confirmation or answer is received within a reasonable time, and repeats mutilated messages.

A subsection of "cables" is the **Cipher Key,** which transcribes outgoing messages into code form, deciphers incoming code messages, and sets up private codes for use between the bank and its foreign correspondents. It also authenticates cable payment orders and important messages by means of prearranged key words.

Banks which do not maintain a separate translation section have translators in this subsection for translating cables and letters from foreign languages into English, and vice versa.

SECURITIES.—This section buys and sells securities for account of foreign customers and correspondents. It is also in charge of safekeeping of securities and other important documents entrusted to the bank by foreign clients.

Other International Banking Institutions

FOREIGN BRANCHES OF AMERICAN BANKS.—Prior to World War I the role of American banks in international transactions was insignificant. London was the financial center of the world and the sterling bill was generally used in making international payments. A timely coincidence of two events, the outbreak of World War I and commencement of operations of the Federal Reserve System in 1914, prompted and enabled American banks to enter the field of international finance on a large scale. The war brought to the United States a rapidly growing foreign trade and changed the country from a debtor to a

creditor on international account. The Federal Reserve Act authorized national banks to establish branches abroad and to create acceptances, and granted the Federal Reserve banks authority to discount eligible bills for member banks and to buy acceptances in the open market.

Section 25 of the Federal Reserve Act permits national banks with a capital and surplus of not less than $1,000,000 to establish branches abroad, subject to approval by the Board of Governors of the Federal Reserve System, and to invest an amount not exceeding 10% of their capital and surplus in the stock of banking institutions chartered in the United States for the purpose of engaging in international or foreign banking and financing. An amendment to section 25, adopted in 1919, provided for the organization of so-called **Edge Act** corporations "for the purpose of engaging in international or foreign banking or other international or foreign financial operations" either directly or through the agency, ownership, or control of local institutions in foreign countries and insular possessions of the United States. Edge Act corporations must have a capital stock of at least $2,000,000, and a majority of the stock must at all times be held and owned by United States citizens. They may accept bills up to ten times their capital and surplus. They may not carry on any part of their business in the United States except such as, in the judgment of the Board of Governors, shall be incidental to their international or foreign business. The amendment covers two types of institutions, for commercial and investment banking. The latter may grant long-term credits by acquiring bonds and mortgages, and issue against them their own debentures to be sold to American investors.

Owing to the organization of investment trusts under state laws and subsequent banking developments, less than half a dozen Edge corporations had been organized, and only two such banking corporations were in active operation by the end of 1950.

The number of foreign branches of American banks increased during the period 1914–1920 from 26 to 181, exclusive of 38 branches of the American Express Company, Inc., but began to shrink in 1920 with the collapse of the war boom. At the end of 1938, seven member banks were operating 101 branches or offices in 66 cities located in 23 foreign countries or possessions of the United States. By the end of 1950, the seven member banks had 95 branches in 24 foreign countries and dependencies or possessions of the United States. Of the 95 branches, 49 were in 10 Latin American countries, 10 in England, 12 in United States Possessions, 5 in Continental Europe, and 19 in the Far East.

ROLE OF THE FEDERAL RESERVE BANKS.—Section 14 of the Federal Reserve Act authorizes the Federal Reserve banks, with the consent or upon the order and direction of the Board of Governors, to open and maintain accounts, appoint correspondents, and establish agencies in foreign countries. The Reserve banks are also empowered to open and maintain banking accounts for foreign correspondents or agencies, subject to consent of the Board. The Boston and Atlanta Reserve banks jointly established an agency in Havana in 1923, mainly to facilitate the circulation of United States currency, but it was discontinued in 1938. The Reserve banks have preferred to enter into correspondent relations and special agreements with foreign central banks.

Because the Federal Reserve Bank of New York is located in one of

the principal financial centers of the world, it acts as the agent of the Treasury in foreign exchange operations. It also acts as agent for the other Federal Reserve banks in their relations and transactions with foreign banks. The New York Reserve Bank holds deposits, earmarked gold, and United States securities for foreign central banks and treasuries. The Federal Reserve Act also granted the Reserve banks power to "purchase and sell in the open market, at home or abroad, either from or to domestic or foreign banks, firms, corporations, or individuals, cable transfers and bankers' acceptances and bills of exchange . . . eligible for rediscount" and to make loans secured by gold.

AGENCIES OF FOREIGN BANKS.—Since the end of World War I, when the United States assumed a leading role in international finance, foreign banking institutions have established offices in the United States, mainly in New York City. The business of such offices is limited by state laws with which they must comply. In New York, foreign banks may open agencies or operate through subsidiary banking corporations. Agencies are not permitted to accept deposits and conduct a general banking business, but they may deal in foreign exchange, pay and collect bills of exchange, sell remittances to foreign countries, issue letters of credit, accept drafts, make loans, and transact other business incident to financing foreign trade. Subsidiary banking corporations are organized as domestic corporations under state laws and are not subject to special restrictions because of foreign ownership.

THE EXPORT-IMPORT BANK OF WASHINGTON.—In 1934 the United States government entered the field of foreign banking by organizing the Export-Import Bank pursuant to an Executive Order of February 2, 1934. The establishment of the Bank was subsequently ratified by Act of Congress and by an Act of July 31, 1945 it was made an independent agency of the federal government. As now constituted, the Bank is empowered to do a general banking business and to make any type of loan for the purpose of "aiding in the financing and facilitating of exports and imports and the exchange of commodities between the United States or any of its territories or insular possessions and any foreign country or the agencies or nationals thereof."

To supplement its capital stock of $1,000,000,000 subscribed by the United States, the Bank is authorized to borrow from the Secretary of the Treasury an aggregate amount not exceeding 2½ times its authorized capital stock. While the Bank may not have outstanding at any one time loans and guaranties exceeding 3½ times the authorized stock, or $3,500,000,000, it can handle a larger amount of business through participation by private banks in credits advanced and through sales by the Bank of paper from its portfolio without guaranty or endorsement.

THE INTERNATIONAL MONETARY FUND AND THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT.—A new approach to the solution of the recurrent troublesome problems of unbalanced international payments, currency depreciation, and exchange restrictions was launched when the United Nations Monetary Conference at Bretton Woods, comprising delegates of 44 countries, adopted on July 22, 1944 two agreements to set up an

International Monetary Fund and an International Bank for Reconstruction and Development. These agreements went into effect in 1946, having been ratified by the great majority of participating governments the previous year.

The main functions of the International Monetary Fund, for which an initial capital of $8,800,000,000 has been provided, are to promote international monetary cooperation, facilitate expansion of international trade, promote exchange stability and avoid competitive currency depreciation, remove gradually foreign exchange restrictions, and grant member countries foreign exchange loans up to stipulated amounts to correct maladjustments in their current balance of payments. Each participating country may borrow foreign exchange from the Fund up to 200% of its quota. In return, it agrees not to change the par value of its currency except after consultation, but a change up to 10% of the initial par value cannot be objected to by the Fund.

The International Bank, with an initial capital of $9,100,000,000, grants or guarantees long-term foreign currency loans to member countries unable to borrow on reasonable terms for specific approved productive projects, including the restoration of economies destroyed or disrupted by war.

Financing Foreign Trade

RISKS IN FOREIGN TRADE FINANCING.—Foreign trade involves peculiar risks not encountered in purely domestic business. These risks arise from the use of different currencies, distances between buyers and seliers which are usually greater than in domestic trade. differences in customs and trade usages, tariffs, and governmental regulations. As stated before, the currency risk can and should be shifted from the importer or exporter to banks. Distances tie up funds for a considerable time, so that financing is often required. Thus, a manufacturer in New York who has sold a quantity of goods to an importer in South Africa or Australia must not only finance the process of production but also carry the financial burden while the goods are in transit to their destination 3 to 6 weeks. On the other hand, were the contract to stipulate that the importer is to pay on the day the goods are turned over by the manufacturer to the common carrier, the importer would tie up his funds for weeks or months pending their sale. Normally, goods in transit in foreign trade can be financed by the banks, by methods usually differing from those in vogue in domestic trade.

FINANCING BY THE EXPORTER.—There are various methods by which the exporter may finance his transactions:

Shipment on Open Book Account.—Where an exporter has maintained business relations with an importer over a number of years and the credit standing and good faith of the importer are unquestionable, the exporter may agree to sell on an open account basis, as in domestic trade. Such an arrangement is extremely advantageous to the importer because it permits him to receive the goods and even sell them before making payment. The exporter runs the risk that in time of stress the importer may give preference to pressing domestic obligations, and

efforts to collect by legal proceedings may prove difficult and expensive. Banks may be willing to grant exporters loans on the evidence of the sales contract and shipment of the goods.

Consignment.—An exporter may ship goods to his branch, agency, or resident salesman abroad and order sale of the goods while in transit or upon arrival at a fixed or the best obtainable price. Proceeds from the sale are then remitted to the exporter in his currency. The exporter then not only ties up his funds until the goods are sold and paid for, but also assumes the exchange risk.

Collection Drafts.—An exporter draws draft on the importer at the time of shipment. Depending on the credit terms specified in the sales contract, the draft, drawn either in the exporter's or importer's currency as agreed, may be either sight or time, clean, or documentary. A sight draft is payable on presentation, while a time draft is payable either at a specified future date or at a certain period after sight. A **clean** draft is drawn by an exporter to collect an amount due from an importer for a shipment of goods. Such a draft is not accompanied by documents and is used when the exporter has complete confidence in the integrity of the importer. Banks generally do not discount clean drafts unless the credit rating of the exporter warrants it.

A **documentary** draft is accompanied by documents conveying title to the goods and may be either a D/P draft, i.e., documents against payment, or a D/A draft, that is, documents against acceptance. In case of a D/P draft the exporter turns over the draft, together with the documents, to his bank for collection, with instructions not to release the documents to the importer until the draft is paid; in a D/A draft the bank is ordered to withhold documents until the importer has accepted the draft. The accepted draft—called trade acceptance—becomes a "clean" bill.

The exporter retains control of the goods when he employs a documentary draft, because the importer cannot obtain shipping documents from the collecting bank until he pays or accepts the draft. If a clean draft is used, the importer can secure the merchandise upon arrival of the documents by mail, even though the draft still has a period to run.

Where the distance between the exporter and importer is great, and the draft and annexed documents sent by mail steamer or air mail will reach their destination long before the goods arrive, it is customary to allow the importer to postpone payment or acceptance of the draft until the goods have arrived.

A bank which undertakes the service of collection must receive detailed instructions from the exporter (drawer) so that it may protect his interests in accordance with the sales contract. The instructions are given on a printed form supplied by the bank (see Fig. 4). The instructions given in each instance are determined by the sales contract, the policy of the exporter, and any special requirements of the moment. Since the bank must follow instructions explicitly, it is advisable that the exporter designate a representative located near the importer (drawee), with instructions "in case of need, refer to." This local representative knows the exporter's policies, and reference to him implies that he may be trusted by the bank to modify original instructions to meet emergencies.

.....19....

MANUFACTURERS TRUST COMPANY
NEW YORK, N. Y.

We enclose the undermentioned drafts for collection.
☐ Reimburse us when payment is received. ☐ Advance.....% of the face amount. ☐ Discount @.....

NUMBER	AMOUNT	DRAWN ON	TENOR	DOCUMENTS ATTACHED					
				Bill	Ins.	Inv.	Cons. Inv.	Cert. Orig.	Misc.

☐ Deliver documents against acceptance.
☐ Deliver documents against payment.
☐ Do not protest for non-acceptance.
☐ Protest for non-acceptance.
☐ Do not protest for non-payment.
☐ Protest for non-payment.
☐ Incur no cable expense.

☐ Non-acceptance to be advised by cable.
☐ Non-acceptance to be advised by air mail.
☐ Non-payment to be advised by cable.
☐ Non-payment to be advised by air mail.
☐ Payment to be advised by cable.
☐ Payment to be advised by air mail.
☐ Inspection of merchandise permitted.

☐ Payable at collecting bank's selling rate for demand drafts on New York.
☐ Payable at collecting bank's selling rate for cable transfers on New York.
☐ Payable at collecting bank's selling rate for demand drafts on New York, proceeds to be remitted by cable at our expense.
☐ In the event U. S. Dollar cover is not obtainable due to exchange regulations, payment in local currency may be accepted under drawees' written obligation to assume all exchange risks.
☐ Interest to be collected at .....% per annum from.....until approximate date of return remittance in New York.
☐ Allow drawee discount of.....if paid at.....
☐ In case of need, refer to.....
who is empowered by us as follows:
☐ to act fully in our behalf.
☐ to allow discount up to .....% and/or extension up to.....
☐ to effect settlement of this draft as drawn without alteration in any way of amount, tenor, or terms.
☐ Present documents through .....
☐ In the event of dishonor, merchandise is to be protected as follows:.....

☒ Unless otherwise instructed, hold for arrival of goods.
☒ Unless otherwise instructed, all charges are for our account.
☐ Special instructions.....

It is understood and agreed that having exercised due care in the selection of any correspondent to whom the item(s) may be sent for collection, you assume no responsibility for any act, omission, default, suspension, insolvency or bankruptcy of any such correspondent or subagent thereof, or for any delay in remittance or loss in exchange.
It is further understood that on items discounted by you or on which you advance money, you may at your own option instruct your collecting agents to inform you by cable, at our expense, of non-acceptance and/or non-payment as well as payment.

FIG. 4. Customer's Instructions to a Bank for the Collection of a Draft

The exporter's bank forwards the draft and documents with the exporter's instructions to its branch or correspondent bank in the country of the importer. Upon receipt of payment from the importer the foreign bank remits the funds to the exporter's bank, which in turn makes them available to the exporter. In case of a D/A draft, the correspondent bank will hand over the documents to the importer upon his acceptance of the draft. On the due date, the correspondent bank presents the acceptance to the importer, and when it is paid remits the amount to the exporter's bank. While the exporter's bank selects the correspondent abroad, the latter acts as the agent of the exporter and not of the bank. Should the correspondent bank become insolvent or bankrupt before it has remitted the collected funds to the exporter's bank, the loss will be borne by the exporter.

FINANCING BY THE IMPORTER.—The importer has three principal means for financing his operations.

Payment with Order.—This term means that the importer must pay for the goods at the time he places the order with the exporter. He would probably purchase from his bank a draft on a bank located in the city of the exporter, or in the financial center of the exporter's country. In normal times sales on such terms are rarely encountered in foreign trade, except when the credit standing of the importer is unsatisfactory or not known. The exporter receives payment before he ships the goods, often even before he has manufactured them. The importer thus not only finances the entire transaction and assumes the foreign exchange risk involved, but pays over cash without security, except for the credit standing of the exporter. Should the order not be filled, should the goods be unduly delayed or prove to be of inferior quality, the importer's only redress is to bring legal action on the basis of the sales contract unless the exporter makes an adjustment voluntarily.

Partial Payment in Advance.—To protect himself against the contingency that goods ordered by importers might be rejected on delivery, an exporter may stipulate in the sales contract that importers must remit in advance a partial payment on the order as evidence of good faith and intention to pay the balance as agreed. Such provision is usually made when the order is for specialized equipment, or when the goods involved cannot be satisfactorily disposed of in the country of destination if the importer fails to take them as agreed. The partial payment by the importer should suffice to cover the cost of freight out and back, insurance, and other expenses incident to the shipment of goods abroad.

Payment on Documents.—When the contract stipulates payment on documents, the importer must provide funds in the exporter's country to pay for the shipment on the day the exporter turns over to a designated bank documents evidencing shipment of the goods ordered. The importer thus raises the funds, converts them into the currency of the country of the exporter, and carries the financing burden while the commodities are in transit.

FINANCING BY THE EXPORTER'S BANK.—The exporter's bank may finance his transactions by the following means:

Advance on Drafts.—Under this arrangement, the financing is done jointly by the exporter and his bank. An exporter who is unwilling to have his funds tied up while the goods are en route to the importer may borrow from his bank a percentage of the amount of the draft. The draft on the importer and pertinent shipping documents, turned over by the exporter to his bank for collection, constitute collateral for the advance. In case the drawee (importer) fails to pay the draft when due, the bank has recourse against the drawer, whether the draft is made out to the order of the drawer (exporter) and endorsed by him to the bank, or to the order of the bank. Thus the credit risk rests upon the exporter just as when he hands the draft to the bank for collection only. After the draft has been paid by the drawee, the bank retains the amount of the advance plus interest and collection fees, crediting the balance to the exporter.

The amount which an exporter can borrow upon foreign drafts depends upon the financial responsibility of exporter and importer, and the collateral behind the draft. The character of the merchandise shipped determines its value as collateral. Staple commodities not subject to rapid deterioration (cotton, wheat, wool) and traded on organized markets are obviously better collateral than perishable goods or manufactured articles requiring expert selling to be disposed of without loss.

Discount of Drafts.—The bank may discount the draft drawn by the exporter on the importer when the credit standing of the exporter is high, and particularly where he already has a line of credit. The exporter then receives the face amount of the draft, less interest and collection charges, except where custom requires the drawee to absorb all charges.

Refinancing Bill.—Under this arrangement, an exporter hands over to the bank the draft and documents for collection, and the bank allows the exporter to draw upon itself a time draft of a maturity identical with that of the draft upon the importer. The bank accepts the draft on itself, and this **refinancing bill** becomes a banker's acceptance which the exporter can sell in the open market at a very low rate of discount. When the original draft has been paid by the importer abroad, the bank uses the funds to pay off its own acceptance at maturity.

FINANCING BY THE IMPORTER'S BANK.—The importer may finance transactions through his bank in several ways.

Commercial Letter of Credit.—This is a device which substitutes a bank's credit for that of the importer by giving the exporter the right to draw drafts upon a designated bank, instead of upon the importer. Such drafts, upon acceptance, become bankers' acceptances which command a low rate of discount. A commercial letter of credit may be defined briefly as a notification issued by a bank to an individual, firm, or corporation, authorizing the latter to draw on the bank, its branch, or a correspondent bank for amounts up to a specified sum, and guaranteeing acceptance and payment of the drafts if drawn in accordance with the terms stipulated in the letter.

A letter-of-credit transaction may be illustrated by the following example. An importer in London purchases from an exporter in New York a quantity of goods, agreeing to make payment by a letter of credit. The importer applies to his bank in London for a letter of credit

in favor of the exporter. If his credit standing at the bank is satisfactory the importer is requested by the bank to fill out and sign an "application and agreement for commercial letter of credit." (See Fig. 5. The agreement appears on the reverse side of the application.) In the application the importer asks the bank to open, by cable or mail, a credit for a stipulated amount to be made available to the beneficiary (exporter)

APPLICATION AND AGREEMENT FOR COMMERCIAL LETTER OF CREDIT

THE NATIONAL CITY BANK OF NEW YORK,
55 WALL STREET,
NEW YORK 15, NEW YORK.

_____ 19____
(PLACE AND DATE)

GENTLEMEN:

THE UNDERSIGNED HEREBY REQUESTS YOU (AS ITS AGENT*) TO ISSUE BY CABLE / MAIL (**) YOUR IRREVOCABLE / REVOCABLE CREDIT, AS FOLLOWS:

IN FAVOR OF_____

FOR ACCOUNT OF_____

UP TO THE AGGREGATE AMOUNT OF_____

AVAILABLE BY_____ DRAFTS DRAWN, AT YOUR OPTION, ON YOU OR ANY OF YOUR CORRESPONDENTS
(PLEASE SIGNIFY TENOR)

FOR_____ PER CENT. INVOICE COST.

WHEN ACCOMPANIED BY THE FOLLOWING DOCUMENTS: (PLEASE INDICATE BY CHECK BELOW)

☐ CONSULAR INVOICE

☐ FULL SET OF BILLS OF LADING DRAWN
TO ORDER OF THE NATIONAL CITY BANK OF NEW YORK
NOTIFY_____

☐ COMMERCIAL INVOICE STATING THAT IT COVERS_____
(PLEASE MENTION COMMODITY ONLY, OMITTING DETAILS AS TO GRADE, QUALITY, PRICE, ETC.)
FOR SHIPMENT TO_____

☐ MARINE INSURANCE POLICY OR CERTIFICATE

☐ WAR RISK INSURANCE ALSO REQUIRED

☐ OTHER INSURANCE_____
(IF OTHER INSURANCE IS REQUIRED, PLEASE STATE RISKS)

☐ OTHER DOCUMENTS_____

INSURANCE TO BE EFFECTED BY_____
(STATE ALSO THE NAMES OF COMPANIES WRITING SUCH INSURANCE)

BILLS OF LADING TO BE DATED NOT LATER THAN_____

BILLS OF EXCHANGE TO BE NEGOTIATED NOT LATER THAN_____

OTHER CONDITIONS

SHIPPING DOCUMENTS FOR CUSTOM HOUSE ENTRY TO BE SENT TO_____

(*) THE WORDS "AS AGENT" APPLY ONLY WHEN THIS APPLICATION AND AGREEMENT FORM IS SIGNED BY A BANK OR TRUST COMPANY.

(**) PLEASE FORWARD THE ORIGINAL CREDIT INSTRUMENT TO_____

FIG. 5. Application and Agreement for Commercial Letter of Credit

by drafts drawn on the bank or its correspondent, upon delivery by the exporter to the drawee bank of specified documents evidencing shipment of goods ordered by the importer.

The agreement usually provides that the importer must put up the funds to meet the acceptances in advance of their maturity. It stipulates that the bank is the owner of the merchandise and documents until the importer has met all his obligations to the bank. It provides that neither the bank nor its correspondents shall be responsible for the

FORM B

THE NATIONAL CITY BANK OF NEW YORK
55 WALL STREET

IRREVOCABLE CREDIT NO.

NEW YORK 15, N. Y.

ALL DRAFTS DRAWN MUST BE MARKED:
DRAWN UNDER CREDIT NO.

DEAR SIRS:

WE HEREBY AUTHORIZE YOU TO VALUE ON

FOR ACCOUNT OF
UP TO THE AGGREGATE AMOUNT OF
AVAILABLE BY YOUR DRAFTS AT FOR INVOICE COST
TO BE ACCOMPANIED BY CONSULAR INVOICE BILLS OF LADING
DRAWN TO THE ORDER OF
AND COMMERCIAL INVOICE EVIDENCING SHIPMENT OF

INSURANCE

BILLS OF LADING MUST BE DATED NOT LATER THAN
BILLS OF EXCHANGE MUST BE NEGOTIATED NOT LATER THAN
A COPY OF THE CONSULAR INVOICE, COMMERCIAL INVOICE, AND ONE BILL OF LADING MUST BE FORWARDED BY FIRST MAIL DIRECT TO
AND A STATEMENT TO THAT EFFECT MUST BE ATTACHED TO THE DRAFT. ALL REMAINING DOCUMENTS MUST ACCOMPANY THE DRAFT.

WE HEREBY AGREE WITH THE DRAWERS, ENDORSERS AND BONA FIDE HOLDERS OF DRAFTS DRAWN UNDER AND IN COMPLIANCE WITH THE TERMS OF THIS CREDIT THAT THE SAME SHALL BE DULY HONORED ON DUE PRESENTATION TO THE DRAWEE.

YOURS VERY TRULY,
THE NATIONAL CITY BANK OF NEW YORK

FIG. 6. A Commercial Letter of Credit

existence, character, quality, quantity, condition, packing, value, or delivery of the property purporting to be represented by the documents.

The importer's bank will then instruct its branch or correspondent bank in New York to open a letter of credit in favor of the exporter under the conditions stipulated by the importer in his application. The New York bank, in turn, notifies the exporter that it will accept his drafts if drawn in compliance with the terms of the credit. This notification to the exporter, specifying conditions stipulated by the importer, constitutes the letter of credit. (See Fig. 6.)

If the importer's bank has substantial resources and is well known abroad, as for example Barclays Bank Ltd., London, it may send a letter of credit directly to the exporter in New York. The exporter then draws on Barclays Bank Ltd. in London and sells the draft to a New York bank, surrendering to it the letter of credit and the shipping documents specified herein. The New York bank will buy (negotiate) the draft only when the exporter is its customer or known to it, and the documents conform exactly to the stipulations. The New York bank then forwards the draft, letter of credit, and shipping documents to its correspondent in London for collection. Barclays Bank Ltd. must pay or accept the draft, unless the documents do not conform to the provisions of the letter of credit.

A letter of credit not only shifts the burden of financing to a bank or the money market, but also gives the exporter a bank guaranty that he will receive cash or a bank acceptance once he has turned over the goods ordered to a common carrier for shipment to the importer in accordance with the letter of credit. An importer supplying a letter of credit is usually able to buy at somewhat lower prices than those quoted to open book account customers, since the exporter neither carries the burden of financing nor assumes the credit risk.

1. Import and export letters of credit. American banks usually distinguish between and handle separately **import** and **export** letters of credit. When an American bank, on the application of an American importer, issues a commercial letter of credit in favor of an exporter located abroad, it is termed an import letter of credit. An export letter of credit is one issued by a foreign bank in favor of an American exporter for the account of an importer abroad buying goods in the United States.

2. Revocable and irrevocable letters of credit. A **revocable** letter of credit may be cancelled by the importer's bank before drafts drawn by the exporter under the letter of credit have been negotiated by the correspondent bank. Banks do not favor revocable letters of credit, some banks refusing to issue them because they may become involved in resulting litigation. The correspondent bank acting as agent for the importer's bank (credit-issuing bank) assumes no obligation. An **irrevocable** letter of credit cannot be cancelled by the importer's bank for the period specified without the consent of the beneficiary. Exporters generally insist upon irrevocable letters of credit.

3. Confirmed and unconfirmed letters of credit. When a correspondent bank located in the country of the exporter **confirms** a letter of credit to the exporter by obligating itself to pay or accept his drafts, it is called a **confirmed** letter of credit. The confirmation binds the correspondent bank to honor drafts drawn under the credit even if the

importer's (issuing) bank should refuse or be unable to meet its obligation. An **unconfirmed** letter of credit does not give the exporter this additional security. Exporters insist on confirmed letters of credit when the foreign issuing bank is not well known. It is obvious that the correspondent bank will confirm only irrevocable letters of credit, since a bank would not guarantee an agreement that may be cancelled at will by the issuing bank.

4. **Revolving letter of credit.** Where an importer maintains continuous business relations with an exporter and receives repeated shipments of goods, a revolving credit in favor of the exporter is often used. A revolving letter of credit automatically renews the amount of the credit when it becomes exhausted. Revolving letters of credit are issued in various forms, of which three types are most frequently employed: (1) The letter of credit provides that when drafts drawn under the letter of credit are paid by the importer, new drafts in equal amounts may again be drawn, so that the stipulated maximum amount may be continually outstanding. Thus if the letter of credit is for $100,000 and the bank has honored the exporter's draft for $20,000, the credit is reduced to $80,000. But after the importer has paid this draft, the full amount of the credit, or $100,000, again becomes available to the exporter. (2) The exporter draws drafts for the full amount of the credit, and when these drafts have been paid by the importer the original amount again becomes available to the exporter. (3) The exporter is permitted to draw drafts up to a stated amount for a specified period, say a month, corresponding to deliveries of goods forwarded periodically.

5. **Assignable letter of credit.** A beneficiary may transfer this type of letter of credit to another party. An **assignable** letter of credit is employed by importers who maintain representatives abroad. It is issued in favor of the foreign representative, who is ordered to buy the goods specified by the importer. When the representative has contracted for the goods on the stipulated terms, he assigns the letter of credit to the seller (exporter).

Authority to Purchase.—The "authority to purchase" (abbreviated A/P), or "authority to negotiate," is a letter or cable sent by the importer's bank to its branch, agent, or correspondent abroad, instructing him to buy an exporter's drafts drawn on an importer. The authority to purchase, used mainly in Far Eastern trade, shifts the burden of financing from the exporter to the importer's bank. Its operation is illustrated by the following example:

An importer in China has bought goods from an exporter in San Francisco, the contract stipulating payment by a 90-day draft on the importer with an authority to purchase. The importer applies to his bank in China for an authority to purchase, specifying the amount, expiration date, shipping documents, and other conditions. When the bank approves the application, the importer signs "a letter of guaranty" in which he obligates himself to accept and pay the draft, pledging the documents conveying title to the goods as collateral security. The bank then instructs its agent in San Francisco to buy the exporter's draft drawn in compliance with the stated conditions. The San Francisco agent sends a notice (advice of authority to purchase) to the exporter, informing him of the terms upon which the draft on the im-

porter will be purchased. After the exporter has delivered the goods to the shipping company, he presents the draft with the required documents to the agent and receives payment. The authority to purchase thus enables the exporter to sell the draft immediately without using up any of his line of credit with his bank.

In contrast to the letter of credit, which gives rise to banker's acceptances, the authority to purchase gives rise to a trade acceptance, with the importer as acceptor. While under both methods the exporter is only secondarily liable, that is, only if the acceptor should fail to pay, it is obvious that an exporter is less likely to be called upon to pay a dishonored bank acceptance than a trade acceptance. The exporter may, however, be relieved from his liability by being authorized to endorse his draft on the importer with the words "without recourse." In that case, if the importer (drawee) refuses to accept or pay the draft, the exporter (drawer) cannot be called upon to refund the money he received from its sale. But authorities to purchase authorizing the exporter to endorse "without recourse" are rarely issued.

The authority to purchase may be revocable or irrevocable. In case of a revocable authority to purchase, the issuing bank has the right to cancel the authorization given to its agent to buy the exporter's draft. In such case the agent's **advice of authority to purchase** contains a clause stipulating that the authority may be cancelled by giving notice to the exporter.

Documents Attached to Draft.—A full set of documents accompanying an exporter's draft under a letter of credit or authority to purchase consists usually of a negotiable bill of lading (two or more copies), an insurance certificate or policy, commercial invoice, consular invoice, certificate of origin, and other documents that may be needed to bring the goods into the foreign country such as an anti-dumping certificate, inspection certificate, or health certificate. The latter is often required for shipments of agricultural and livestock products. These shipping documents are ordinarily endorsed in blank or to the bank negotiating the exporter's draft. To establish the indisputable legal right of the negotiating bank to the goods represented by the documents, the bank usually requests the exporter to execute a **letter of hypothecation and general assurance.** This instrument contains a number of provisions, of which the most important are those in which the exporter obligates himself to deliver to the bank all the necessary documents, to indemnify the bank against losses and costs arising in connection with the draft, including loss from exchange fluctuations, and to pay the amount of the draft upon notice of protest. It grants the bank discretionary power to dispose at public or private sale, for its own and the exporter's protection and for account and sole risk of the exporter, all or part of the merchandise represented by the title-conveying documents, and to apply the net proceeds towards payment of the draft or drafts secured by these documents.

TRAVELER'S LETTER OF CREDIT.—This instrument provides safety and convenience in carrying funds abroad for foreign commercial travelers and tourists. Thus an American tourist planning to visit a number of countries in Latin America could carry dollar currency, exchanging it for currencies of each nation on the spot, but this

Goldman, Sachs & Co.

Travelers Letter of Credit

No. 5000 $4,000.- *New York,* October 31, 19-

To our Correspondents
Gentlemen:

We beg to inform you that we have accredited
John Doe and/or Dorothy Doe
to whom you will please furnish such funds as
either *may require up to the aggregate amount of*
Four Thousand *Dollars*
say $4,000.- *United States Currency against* his or her *demand drafts on Goldman, Sachs & Co. New York.*
We engage that such drafts shall meet with due honor.

Kindly purchase drafts at the rate at which you buy demand drafts on New York and endorse the amount of each draft on the back of this letter which is available until December 31, 19- *and must be returned with the last draft.*

Please see to it that the drafts are signed in your presence and are plainly marked as drawn under Letter of Credit No. 5000 *of Goldman, Sachs & Co. dated* New York, October 31, 19-

Asking for them *your kind attention.*
We remain, Gentlemen,
Yours very truly,
(SIGNED) *Goldman, Sachs & Co.*

FIG. 7. A Traveler's Letter of Credit

involves the risk of loss and theft, and actual currency may be quoted at a considerable discount. He could buy separate drafts on banks in each country, but he does not know just how much he will need.

By buying a traveler's letter of credit, he obtains a letter addressed by the American bank to listed banks abroad, requesting them to honor drafts drawn by the buyer of the letter up to a stipulated aggregate amount, and not later than a stated date. (See Fig. 7.)

At the time of issue of the traveler's or circular letter of credit, the buyer (beneficiary) is furnished with a list of the issuing bank's foreign correspondents who will purchase, at the prevailing rate for sight exchange, drafts drawn in the currency of the country and on the bank named as correspondent. Comparison of the beneficiary's signature on the draft with that forwarded to the correspondent banks serves as identification. The beneficiary may in addition present his passport as identification. The bank officers' signatures on the letter of credit are compared with those on file with the correspondent bank, which establishes the genuineness of the letter of credit. As a precaution against overdrafts, the amount of each draft negotiated is entered by the paying correspondent bank on the reverse side of the letter of credit, which is taken away from the beneficiary and returned to the issuing bank by the correspondent paying the final draft that exhausts the amount of credit. The issuing bank charges the buyer a commission ranging from ½% to 1%. In addition, correspondent banks sometimes charge a commission for negotiating the individual drafts.

TRAVELERS' CHECKS.—Tourists traveling abroad and at home can protect themselves against the loss of cash by using travelers' checks. These are issued by banks, express companies and some tourist agencies. They are usually promises to pay on demand even amounts, such as $10, $20, $50, and $100. (See Fig. 8.)

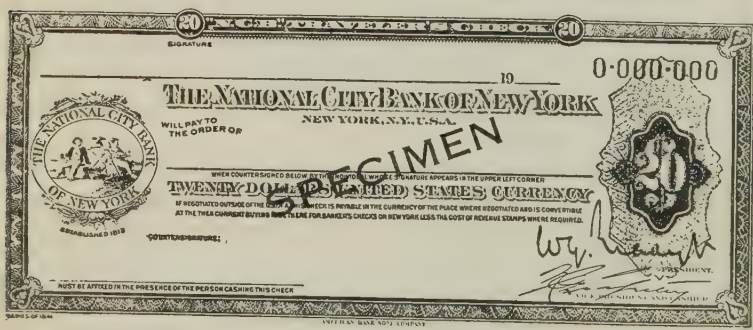

SIGNATURE
19
0-000-000
THE NATIONAL CITY BANK OF NEW YORK
NEW YORK, N.Y., U.S.A.
WILL PAY TO THE ORDER OF
SPECIMEN
TWENTY DOLLARS UNITED STATES CURRENCY
THE NATIONAL CITY BANK OF NEW YORK
ESTABLISHED 1812
COUNTERSIGNATURE:
MUST BE AFFIXED IN THE PRESENCE OF THE PERSON CASHING THIS CHECK

Fig. 8. Traveler's Check

The buyer of the checks signs each check at the time of purchase, and again on presentation for payment. Comparison of the two signatures establishes his identity. Travelers' checks are generally accepted as demand exchange, and in the United States may pass virtually as currency. The checks are sold for their face amount plus a commission of ¾ of 1%.

SECTION 16

FINANCIAL PLANNING

CONTENTS

PAGE

Definition and Scope

Concepts of financial planning 669
Financial planning defined 669
Comprehensive character of financial planning 670
Flexible planning 671

Budgeting and Financial Planning

Budgeting defined 671
Budget procedure 672
Use of budgets in financial planning . 673
Types of budgets 673
Expense analysis and budget comparison (*f.* 1) 675

The Cash Budget

Significance of a cash budget 676
Integrating cash forecasts and the business program 676
Long-term cash forecasts 677
Advantages of long-term cash forecasting 678
Shorter-term cash forecasts 678
Cash income vs. profit 679
Uses of a cash budget 679
Preparation of a cash budget 680
Cash receipts and disbursements method 680
Forecasting collections from sales . 681
Receipts and disbursements method of cash forecasting (*f.* 2) 681
A form for forecasting sales and receipts for the cash budget (*f.* 3) 682
Forecasting disbursements 683
Cash forecasts by adjusted earnings method 684
Adjusted earnings method of cash forecasting (*f.* 4) 685
Balance sheet projection method of forecasting cash 684
Working capital differentials method of cash forecasting 685
Projection of working capital, excluding cash and investments (*f.* 5) 686
Projection of consolidated cash position (*f.* 6) 688–689

PAGE

Preparation of a cash budget—*Cont'd*
Provision for contingencies 687
Cash forecasts and borrowing 687

Planning for Profit

Objectives of profit planning 687
Budgets and long-term forecasts 690
Long-term profit planning 690
Profit goals 691
The break-even chart in planning profits 691
Break-even chart (*f.* 7) 692
Profit and loss forecasts 691
Estimated profit and loss statement (*f.* 8) 693

Balance Sheet Projections

Uses of balance sheet projections.... 694
Period of balance sheet projection.. 694
Projected balance sheet (*f.* 9) 696
Review of balance sheet projection.. 695
Earned surplus projection 695

Financial Planning for Long-Term Expansion

Need for plannnig in expansion 697
Factors entering into expansion planning 697
Long-term goal of the company 697
Forecast of economic conditions 698
Long-term forecasts of demand and selling prices 698
Larger sales without expansion 698
Estimating expansion required 698
Production costs at increased volume 699
Selling and advertising costs 699
Increased working capital requirements 699
Financial requirements of expansion.. 699
The "10% factor" 706
Profitability of contemplated expansion 700

Business Conditions and Financial Planning

Influence of external factors 700
Forecasting business conditions 700
Adjusting the business to economic conditions 702

PAGE
Size and composition of inventories.. 702
Accounts receivable and credit policies 702
Reserves for contingencies 702
Amounts and maturity dates of bank loans 702
Fixed charges on long-term obligations 702
Relation of fixed to total costs 703
Purchases of materials and equipment 703

Organization for Financial Planning

PAGE
Responsibility for financial planning 703
Financial planning functions of the board of directors 704
Financial executives on the board of directors 705
Reports to the board of directors ... 705
Board committees 705

SECTION 16

FINANCIAL PLANNING

Definition and Scope

CONCEPTS OF FINANCIAL PLANNING.—Financial planning is a term frequently used in financial literature, but seldom explicitly defined. Writers use financial planning to mean:

Planning the Capital Structure.—When used in this sense, the term refers to the capitalization of a corporation, including a determination of the amount, the proportions and the characteristics of bonds, preferred and common stock to be issued.

Preparation of a Cash Budget or Forecast.—This use of the term refers to a projection of the cash requirements of a corporation for a specified future period and the funds likely to become available during the period.

Management of Working Capital.—Financial planning is regarded by some as being concerned primarily with efficient administration of current assets and the securing of the working capital of the business on desirable terms.

Management of Fixed Capital.—Some regard financial planning as consisting chiefly of the preparation of a capital budget and the administration of fixed assets, including depreciation and replacement policies.

Planning for Profit.—Many writers regard financial planning as synonymous with "planning for profit," or analysis of the elements of income and cost with a view to securing a higher return on the capital invested in the enterprise.

Projections of the Balance Sheet to Future Dates.—

Budgeting.—Frequently the term financial planning is used interchangeably with budgeting in general.

Formulation of Corporate Financial Policies.—This use of the term is practically coextensive with financial management of a business in its broadest sense.

Each of these concepts of financial planning covers an important phase of financial management. They are not mutually exclusive, but rather constitute parts of a whole.

FINANCIAL PLANNING DEFINED.—For a more inclusive definition that will embrace all of the aspects mentioned, financial planning may be described as **a forward-looking appraisal of the financial**

aspects of the business program, leading to decisions regarding the most effective course of action to be taken over a future period. Its fundamental objectives are to place the enterprise in a sound financial condition and to earn satisfactory profits, both for the immediate future and over the long run. Such planning is a primary responsibility of top management.

Financial planning and business planning are interdependent at every stage. A forecast of sales, for example, cannot be made without reference to productive capacity, while production cannot be planned ahead without a reliable forecast of sales. But both sales and production must be planned in the light of the financial consequences, while production and sales plans will determine the working and fixed capital requirements of the business. Thus, top management may decide that a profitable expansion of sales can be effected provided productive capacity is first enlarged and modernized, but this will call for a large outlay of cash that could not be raised on satisfactory terms until some future period. Therefore, the expansion program may be deferred for purely financial reasons.

The list of interdependent variables that enter into over-all business and financial planning could be extended to infinity. Every phase of business planning implies financial considerations, just as every phase of business planning determines what is sought through financial planning. It is a matter of judgment to select the important phases of business operation that bear most directly upon the financial condition and earning power of the enterprise, and practical financial planning will be concerned chiefly with these.

In this Section, budgeting as a tool of financial planning, the use of the cash budget or forecast, planning for profit, balance sheet projections and planning for long-term expansion are the aspects of financial planning that are considered in detail.

COMPREHENSIVE CHARACTER OF FINANCIAL PLANNING.—The financial condition of a business is presented in its balance sheet, while its earnings are reported in the profit and loss statement. It is logical, therefore, to base financial planning upon the major items appearing in these two financial statements. Financial planning is concerned with the impact of business policies and trends upon every item in the balance sheet and profit and loss statement. For this purpose, a condensed version of the balance sheet could be used, as follows:

Assets	Liabilities
Current Assets	Current Liabilities
Cash	
Inventories	Fixed Liabilities
Finished Goods	
Goods in Process	Net Worth
Raw Material	Capital Stock
Accounts Receivable	
Investments	Surplus
Fixed Assets	
(Less Reserves)	
Other Assets	

A condensed profit and loss statement for financial planning would contain the following items:

Sales
Less Cost of Sales
Gross Profit
Less Selling and Administrative Expenses
Operating Profit
Plus Other Income
Less Other Charges
Net Profit Before Federal Income Taxes

If financial planning is thus considered to be a preview of the financial statements of a business as they will appear at a specified future date, full cognizance must be taken of the major influences, external and internal, that will affect these statements at the time. Such preplanning of a corporation's financial condition and earnings will have to be based upon:

1. Forecasting of economic conditions.
2. Sales forecasts.
3. Expected selling prices.
4. The production schedule.
5. Planning of product lines.
6. Planning for profit.
7. Planning for working capital requirements and for the effective use of working capital.
8. Planning for capital expansion program.
9. Planning for new financing and refinancing.
10. Planning for effective use of profits.
11. Providing for reserves and contingencies.
12. Adjusting financial planning to economic conditions.

These elements of planning are indicative rather than inclusive. The order given above is merely accidental. Actually, financial planning must either be simultaneous for all the elements involved or the order must be adapted to the specific requirements of each business.

FLEXIBLE PLANNING.—Sound financial like other business planning must be flexible. It is not enough merely to formulate a good financial plan. The application of the plan will call for constant revisions, both of goals and measures, as circumstances dictate. The complexity and uncertainty of doing business require that financial planning be adaptable not only to a given anticipated level of operations, but to unexpected developments that will arise from time to time. Changing market demands, inventions, changes in labor and materials costs and the effect of overhead costs upon profit and working capital require continuous revision of projections of the future financial condition of the business and its profits. Alternative plans must be formulated so that, in the event unforeseen factors affect the anticipated level of operations, the company will not be faced with an emergency for which it is not prepared. Capital requirements and costs should be estimated for various levels of production and sales. Inventories and receivables applicable to different production and sales schedules should be projected to aid in planning working capital requirements.

Budgeting and Financial Planning

BUDGETING DEFINED.—The terms budget, budgeting and budgetary control are variously defined. John R. Bartizal (The Controller, vol. 14) suggests several definitions:

Budgeting provides management with the necessary over-all tool for formulating policies to meet changing conditions. Yet, when we speak of budgeting, we are not all in agreement as to its real meaning. Some refer to budgeting as representing the over-all estimate of the effect upon profit and loss statements and the balance sheet of the projected program of operations. Others restrict budgeting to a more narrow field involving a coordination of sales and production. Still others refer to the projection of the cash operations as representing the budget of the business. Being a tool of management, this tool must be specially engineered and designed to meet the problems which are peculiar to the particular business and no one plan will fit the needs of all companies.

The National Industrial Conference Board's survey on budgeting gives the following definition (Budgetary Control in Manufacturing Industry): "A budget is essentially a planned forecast of expected business operations for a definite period expressed in numerical terms in accordance with the accounting forms employed to record the operations of the enterprise. Budgetary control then becomes, briefly, the use of this instrument to direct business operations." Budgetary control procedure is said to comprise "(1) assembling information that may have an effect on its operations during a stated ensuing period, (2) applying the information to forecast trends and to formulate a program, and (3) using the program currently for measuring operations."

BUDGET PROCEDURE.—In the light of the general policies of the enterprise, the separate departments and subdivisions of the business usually prepare individual departmental budgets. For this they require statistical and accounting data covering past results, which should be furnished them by the controller. The departmental budgets are then molded into a preliminary budget by the budget director, who in some organizations is also the controller, who submits it to top management for review and approval. Discussions with department heads may cause various sections of the budget to be revised while the over-all budget is in preparation.

The form and content of a budget should be adapted to meet the need. Some concerns, because of the nature of their business, require detailed budgets, while others find that the ends of planning, coordination, and control are achieved with less detail in their budgets.

A comprehensive budget for a manufacturing company will usually include the following sections:

1. Sales budget.
2. Production budget.
3. Materials budget.
4. Labor budget.
5. Manufacturing expense budget.
6. Research and development budget (frequently covers several years).
7. Distribution cost budget.
8. Administrative expense budget.
9. Plant and equipment budget (usually prepared for several years ahead and revised at least annually).

All of the above budgets are useful in the preparation of the following financial budgets:

10. Estimated cash receipts and disbursements for each month of the budget period.

11. Estimated profit and loss statement for each month, or each quarter of the budget period, or for the entire budget period.
12. Estimated balance sheet as at the end of each month, or each quarter, or the end of the budget period.

These budgets are all presented to top management for final approval.

USE OF BUDGETS IN FINANCIAL PLANNING.—Financial planning should precede and control the formulation of a budget. A good budget is the result of good planning. It is possible to plan the operations of a business without a budget, but it is inconceivable that a budget could be prepared without prior planning. The budget is an expression in financial terms of the plan of operations.

Prior to adoption of the budget, the following questions must be answered:

1. Will the program produce the maximum profits attainable under the circumstances?
2. Will the program keep the business in sound financial condition?
3. Do the financial resources of the business permit attainment of the contemplated program?
4. Should the plan of operations as expressed in the budget be revised, and in what respects?

TYPES OF BUDGETS.—There are three principal types of budgets: the appropriation budget, the fixed or forecast budget, and the variable or flexible budget.

The **appropriation budget** is used primarily by organizations which do not have a complete budget system, but nevertheless desire to place a limit on the amount to be expended upon a particular activity. Appropriation budgets are used most frequently in connection with advertising, research and development, etc. Appropriation budgets have very limited uses in business, though they are very common in governmental budgeting.

Fixed or forecast budgets establish a plan of operations in which the standard of measurement does not vary with actual conditions. Thus, if unit costs have been set at $1 on the assumption that volume of production will be 100,000 units, the budgeted unit costs would not vary if production should actually be only 80,000 units. With fixed budgets, changes in the volume of sales do not alter the budget, but the figures remain "fixed" or "static." They are prepared on the assumption that sales and production volume, production costs and profits can be forecast with some degree of accuracy. In practice, however, actual results are frequently wide of the mark.

Fixed budgets become of little value when the volume of operations differs materially from forecasts, primarily because of the influence of fixed or overhead expenses upon total costs with changes in the volume of business. Fixed budgets are gradually being replaced by flexible or variable budget systems in which unit costs are related to the volume of production. Gardner (Variable Budgeting), in commenting upon the fixed or static type of budget, states:

> Static budgeting has failed in most enterprises completely to meet its objectives for sustained periods of time, not because looking ahead is not valuable but because the basis for looking ahead has not been expressed in mobile units that keep pace with unpredictable changes.

Under a static budgetary control or any fixed cross section of expectancies we measure costs at a projected, or anticipated, level of activity. At that point, and that point alone, we know exactly what we should spend or how we stand. Unfortunately, at other points of activity we have no predetermined relationship, or at least not one of a current nature, nor do we have any device to interpolate between known static relationships. Thus we find that when the planned program changes as the result of unpredictable external forces, the control is distorted and uncertain.

Only **flexible budgeting** provides a sound basis for financial planning, because it can readily be adapted to actual experience. For instance, if a forecast is based upon sales of 100,000 units but only 80,000 units are actually sold, total costs of production and of distribution would not decline by 20%. In most cases, the actual reduction would be less because of continuing overhead costs. It can normally be assumed that if sales and production volume vary from the forecasts, unit costs and profits will also be affected. This follows from the nature of costs and expenses, which can be divided into three categories:

1. **Variable costs and expenses**—which are almost directly related to volume and include such costs as direct labor, direct material, and compensation insurance.
2. **Fixed expenses**—which remain fixed in amount regardless of volume. Examples of fixed expenses are property taxes, fire insurance, executive salaries, interest on bonds, and depreciation charged on a time basis.
3. **Partly variable expenses**—which vary, but not proportionately, with volume. Examples are light and power and salesmen's commissions paid on a guaranteed minimum basis. Sometimes these expenses vary with policy rather than volume changes.

Flexible budgets are prepared so as to permit revision of estimates of operating costs and profits with changes in sales and production volume. Then failure to attain the volume of sales used in the sales budget, which necessitates alterations in the production schedule, would not vitiate the value of production and distribution cost budgets.

Examples of flexible budgeting which can facilitate financial planning are cited in The Manufacturing Expense Budget (Metropolitan Life Insurance Co., Policyholders Service Bureau), as follows:

The first step in the budgeting procedure of the Fairbanks Company of New York is the preparation of a series of flexible forecasts of sales, income, factory production, profit and loss, and balance sheets, the bases of the financial budget. These flexible forecasts take the operating results of a normal year and increase therefrom in steps of 5 per cent up to 25 per cent over a normal year. They also decrease from normal in steps of 10 per cent down to the "break-even point." The "break-even point" is that percentage of productive capacity below which operations take place at a loss. The flexible forecasts are based on the expectation of selling the factory production at each level so that the forecast for production, sales, profit and loss, and the balance sheet are in step one with the other.

The practice of another company was cited as follows:

A further study of production results demonstrated that actual production may vary from the normal as much as 50 per cent in either direction. To provide for these variations, a statistical study was made to determine the amount of variation for each item of cost as production

DEPARTMENT
FOREMAN

EXPENSE ANALYSIS YEAR

EXPENSE ACCOUNTS	ESTIMATED BASIS	% VARIABILITY	% TO TOTAL	JANUARY ADJ BUDGET	JANUARY ACTUAL EXP	FEBRUARY ADJ BUDGET	FEBRUARY ACTUAL EXP	MAR	ECEMBER	12 MONTHS TOTAL	MONTHLY AVERAGE
Non-Prod. Wages											
Foreman	433	-		433		433					
Supervisors	400	80		560		320					
Die Maintenance	1250	100		1875		938					
Equipment Maintenance	417	85		594		328					
Clerk	125	50		156		109					
Dismount & Reset for Repairs	175	100		263		131					
Total Non-Prod. Wages	2800	77.2		3881		2259					
Rate per Hour	70¢			64.7¢		75.3¢					
Supplies											
Die Maintenance Supplies	25	100		38		19					
Equip. "	325	85		463		256					
Pots	250	100		375		188					
Gooseneeks	400	100		600		300					
Gloves	100	100		150		75					
Nozzles	100	100		150		75					
Total Supplies	1200	95.9		1776		913					
Rate per Hour	30¢			29.6¢		30.4¢					
Shares											
Power	110	50		138		96					
Compressor	490	20		539		466					
Total Shares	600	25.5		677		562					
Rate per Hour	15¢			11.3¢		18.7¢					
Fixed Charges											
Depreciation	534			534		534					
Insurance	11			11		11					
Tax	55			55		55					
Total Fixed Charges	600			600		600					
Rate per Hour	15¢			10¢		20¢					
Grand Total	5200	66.7		6934		4334					
Productive Hours	4000			6000		3000					
Rate per Hour	$1.30			$1.156		$1.444					
Variance in Production				Inc. 50%		Dec. 25%					

FIG. 1. Expense Analysis and Budget Comparison

varied from the normal. This study resulted in the establishment of rates of variability, these rates showing a percentage increase or decrease for each item of cost from its normal for each percentage increase or decrease of production from its normal. For example, in the department whose expense accounts are illustrated, for each 1 per cent increase in production hours above the normal, the allowance for equipment maintenance expense is increased 0.85 per cent, while a 1 per cent decrease in production results in an 0.85 per cent decrease in equipment maintenance expense. (See Fig. 1.)

The Cash Budget

SIGNIFICANCE OF A CASH BUDGET.—A cash budget is the most effective tool to aid planning for the cash requirements and resources of a business. It is an inclusive forecast of cash income and outgo and of estimated cash balances for a future period. Its primary purpose is to utilize existing and anticipated cash resources to finance operations, pay debts as they mature, pay for expansion considered desirable and maintain a satisfactory liquid position.

Cash planning is more than a mere mechanical assembly of estimates of cash requirements from expense and capital budgets, and the balancing of these requirements against cash balances and anticipated receipts. Sales, production, pricing, financing and other policies should be critically re-examined in the light of the cash budget, and modified where the latter indicates this to be desirable.

INTEGRATING CASH FORECASTS AND THE BUSINESS PROGRAM.—Planning of business operations should be concomitant with planning of cash requirements and resources. Inadequacy of cash for working capital needs is often given as the most common cause of financial embarrassment. A more accurate statement would usually be that the business planning was not coordinated with cash planning. Large cash outlays are needed for wages, materials, overhead expenses, etc., which will not be recovered until collections of accounts receivable occur. Prior to the adoption of a plan of operation, therefore, careful estimates of the availability of cash to finance the program must be prepared, to make sure the company will not find itself forced to borrow on short notice at excessive cost, if indeed funds can be secured at all under such circumstances.

Cash may be likened to an essential lubricant of the business operating machine, and it must be provided in the proper amount and at the proper time for smooth operation. A shortage of the cash lubricant could force a halt in operations; an excess of cash may invite inefficiency.

A comprehensive operating budget will indicate the sources and amounts of cash to become available and the requirements for a future period, providing the basic data to be incorporated in the cash budget. Prior to adoption of either the operating or cash budget, the financial desirability of the business program as laid out should be reviewed by top management.

Where a cash forecast indicates a **deficit of resources** during all or part of the budget period, the entire plan of operations must be re-examined to see if this deficit can be overcome internally. It may be that the program is too ambitious for the resources available, or that

certain budgeted activities can be curtailed or delayed until a later date. For instance, in planning product lines it is common to set manufacturing costs and distribution expenses against anticipated receipts from sales to estimate the profitability of a new product. Consideration should be given also to the cash required to manufacture and sell the product. If a product line requires large sums of cash to finance its manufacture and marketing, the strain placed upon the financial resources of the company may be found to be disproportionate to the anticipated profits. Conversely, a product line may show a relatively small margin of profit, but warrant a larger place in the company's operations because the cash required would be well within the resources of the company as revealed by the cash budget.

LONG-TERM CASH FORECASTS.—Long-term cash forecasting normally includes any cash forecast in excess of one year. But "long-term" must be given an elastic interpretation where fluctuations in sales and a weak financial condition necessitate restricting cash forecasts to a short period such as one or two months. A 3-month cash forecast might be short-term for one company and long-term for another.

Necessarily, long-term cash forecasts must be tentative, and cannot include the details usually found in a short-term forecast. Some cash forecasts are made for a 5-year period, and occasionally even longer. Cash forecasts in excess of a year are usually broken down by 6 months or yearly totals.

Long-term cash forecasting can be conducted successfully only as part of coordinated financial planning which includes a long-term forecast of profits, planning for capital expansion, and formulation of an over-all financial program for the company. The controller of one concern reported experience as follows (The Controller, vol. 14):

> We are not so much interested in the 10, 15 or 20 year forecast, but are particularly interested in the 3 to 5 year forecast, and particularly the 3 year. This is particularly important in the period when we are converting from war production to normal production to determine the need for expansion and the availability of cash for expansion and working capital. Any forecasting of this nature is of little value unless it includes the expected volume of business and the expected profit from that volume. Any financing program must have, in my opinion, such a forecast to determine the needs of the financing program.

Long-term forecasts of cash are of value principally at the executive or finance committee and board of directors levels in the formulation of over-all financial policies. They establish a pattern for shorter-term forecasts, and thus tend to minimize the danger of day-to-day cash expenditures based on exaggerated emergencies or optimism. One company reported (The Controller, vol. 14):

> Broad planning of an executive committee level has usually been carried out on an approximate 5-year basis. However, up until the present time, the majority of our cash and operating forecasts have been prepared on a 15-month basis. In our cash forecast, which is based on the 15-month period, it has been our practice to carry the information forward to a point at which we can foresee the highest capital requirements. However, the 15-month period has proved a fairly satisfactory length of time. Operating forecasts have been prepared for a 15-month and a 2-year basis and, in our opinion, this has gone sufficiently into the future to be effective in guiding management. Both the cash and operating forecasts,

of course, follow the general scheme of the 5-year forecast outlined by the Executive Committee.

Advantages of Long-Term Cash Forecasting.—A long-term cash forecast is valuable in channeling cash resources, so as to avoid reinvestment of a disproportionate share of profits in current or fixed assets, or the incurring of fixed liabilities which are either unnecessary or beyond the financial strength of the company to carry. Long-term cash forecasts are essential to the proper planning of capital expansion and in arranging well in advance for increased working capital requirements and higher operating costs caused by expansion or rising prices. Also, the sale of new securities can be timed to take advantage of favorable markets, and a stable dividend rate can be established based on the cash to become available for this purpose over the period of the forecast.

SHORTER-TERM FORECASTS.—The period of the cash budget is largely dependent upon stability of sales and production. Where sales volume and prices are erratic, the period of the cash budget must be shortened.

Normally the cash budget is prepared separately for each month of the budget period. Where cash balances are low or profit margins narrow, however, it may be advisable to break down the cash budget to a weekly and even to a daily basis. Frequently it is desirable to prepare the cash budget by weeks for the first month or two, and by months thereafter. Sometimes a budget is prepared by months for the first three months, and by quarters thereafter. Some companies prepare a 10-day forecast of cash.

A **progressive cash budget** is one that is revised regularly as time elapses. Thus, in a progressive budget prepared for a 3-month period, a month is added as each month expires, figures for the remaining 2 months being revised.

Some concerns with ample reserves of cash prepare the budget by quarters or 6-month periods. A budget prepared for quarters or half-years may obscure temporary sharp declines in cash during the period. Thus, with a cash budget prepared for a 3-month period, total cash receipts for the entire period, when added to the opening balance, may be more than sufficient to meet anticipated requirements. Yet a severe deficiency in cash could occur at some time during the period that will not be revealed by the cash budget.

Length of the cash budget period used by a number of companies was reported by the Metropolitan Life Insurance Co. (The Cash Budget) as follows:

A cash budget period of one year or more is used by approximately one-half of the concerns included in the survey, the remainder having shorter periods. The following table shows the number of concerns using each length of period:

Period	Number of Concerns
1 month	7
2 months	4
3 "	3
6 "	4
12 "	17
14 "	1

In practically all instances the concerns forecasting cash a year or more in advance have developed a detailed forecasting procedure for other purposes, usually in connection with a complete operating budget, and utilize the data thus developed in their cash forecasts. The majority of concerns that use only a short cash forecasting period do not operate a comprehensive budget program and apparently have made little systematic effort to develop precision in forecasting technique.

The maximum cash budget period, however, does not necessarily coincide with the period used for operating budgets, in the concerns having a comprehensive budget program. Production, sales and expense budgets usually cover a fixed period of time, as for example, the fiscal year, whereas the cash budget period is frequently progressive in character, and is designed to cover a fixed number of months in advance.

CASH INCOME VS. PROFIT.—It is important to bear in mind that the net profit from operations as shown by the profit and loss statement is not at all the same as the excess of cash receipts over cash outgo. Many items of cash expenditure are not included as expenses in the profit and loss statement; conversely, some items of expense do not require a cash outlay in the same period. The difference between "estimated net profit from operations" and "estimated excess of cash receipts over cash outgo" is not a mere accounting detail, but may be of crucial importance in financial planning. Cash planning based upon adding the estimated profit for a period ahead to the existing cash balance could lead to wholly mistaken conclusions and financial difficulties.

Some factors which cause a statement of estimated profit or loss to vary from a statement of estimated cash receipts and disbursements are:

1. Sales are included in the profit and loss statement, but cash payment may not be received until a subsequent period.
2. Payments to trade creditors will vary from materials and supplies charged to costs of operation in the same period.
3. Many expenses, such as interest or insurance, may actually be paid in a period prior or subsequent to that in which they are applicable.
4. Some items of income may be received in cash in one year, but might be applicable to the operations of another year.
5. Cash receipts from the sale of capital assets are not an element of operating income, but they do increase the availability of cash.
6. Similarly, payments for capital assets are not an element of cost at the time they are purchased and paid for, but do absorb cash.
7. Depreciation of fixed assets is charged to costs of operations, but does not involve a cash outlay as a rule until a later period.
8. Reserves for bad debts and other valuation reserves reduce profits, but not cash.
9. Purchase or sale of investment securities may not affect income, but does affect cash balances.
10. The proceeds from the sale of corporate stock or bonds increase cash, but not income.
11. Repurchase or redemption of a company's bonds or stock decreases cash, but not income.
12. Cash dividends to stockholders decrease the amount of cash on hand.
13. Such book charges against profit as development expense and amortization of patents do not require a cash outlay.

USES OF A CASH BUDGET.—A cash budget can assist in:

1. Efficient use of cash. Careful planning permits a business to be run with less working capital. By timing cash disbursements to

coincide with cash receipts, it may be possible to avoid having large cash balances one week, and a deficit the next, to be followed by another large cash balance thereafter. Thus, unnecessary borrowing can be avoided.
2. The financing of seasonal business fluctuations. This is particularly important with businesses which have to borrow on accounts receivable or inventories at high cost.
3. Borrowing at short and longer term, through strengthening the credit of the business and indicating the amounts required.
4. Making provision for paying maturing obligations. This is particularly important with large payments such as maturing bond issues, interest on indebtedness, and taxes.
5. Providing funds for capital expansion. A cash budget helps to avoid premature borrowing, with consequent unnecessary interest costs, as well as to facilitate arranging loans and stock sales in advance.
6. Financing of hedging operations.
7. Coordination of cash receipts and requirements of subdivisions and operating units.
8. Investment of surplus cash, since the company can gauge the length of time the cash will not be needed in the business.
9. Realization of savings from cash discounts, advantageous purchases of materials, etc.
10. Dividend policy formulation. This is particularly important because of section 102 of the Revenue Act, which imposes penalties upon "unreasonable" accumulations of surplus.

PREPARATION OF A CASH BUDGET.—Cash budget procedures must be adapted to the specific requirements of each enterprise. The most commonly used methods of preparing a cash forecast are:

1. Cash Receipts and Disbursements Method.
2. Adjusted Earnings Basis.
3. Predetermination of Balance Sheet.
4. Working Capital Differentials.

Cash Receipts and Disbursements Method.—This method of forecasting cash is the most commonly used, but the others, or variations of them, are becoming increasingly popular. The cash receipts and disbursements method is more elastic and can be prepared by weekly, 10-day or monthly periods, while the others require longer periods and must be part of forecasting procedures for profit and loss or balance sheet items. For companies with erratic or highly seasonal sales records and irregular earnings, or whose cash balances are low in relation to requirements, the cash receipts and disbursements method usually permits a more effective control of cash, since actual receipts by source and actual expenditures for each classification of expense can be compared with the amount which has been forecasted during the period. Also, greater flexibility is possible in the control of payments and cash disbursements can more easily be timed to receipts, thereby decreasing the size of cash balances required to support a given volume of business activity.

However, the other methods are simple and satisfactory where earnings are stable and cash reserves ample. The adjusted earnings and predetermination of balance sheet methods have been found quite suitable by companies which have developed a good system of budgetary planning and control.

Where a complete budget plan is already in use, the cash receipts and disbursements approach necessitates translating operating and cost budgets into estimates of cash receipts and disbursements. A form for cash receipts and disbursements forecasts is shown in Fig. 2, with separate columns for estimated and actual receipts and disbursements by months. It is usually preferable to prepare the cash forecast first without including purely financial items such as proceeds from the sale of securities, bank loans or dividends. After completion of the cash budget without these items, top management can arrive at decisions regarding financing, borrowing and dividend declarations, and it is then a simple matter to alter the cash budget in conformance with these decisions.

Forecasting Collections from Sales.—Forecasts of receipts from sales should be based upon past experience and adjusted for the trend of business as it affects the company. Consideration must be given not only to fluctuations in business activity and seasonal trends, but to such specific factors as the date on which Easter occurs, which may greatly affect sales for a particular week or month. A form for forecasting sales and receipts is shown in Fig. 3.

In determining the lag between sales and collections, graphs of sales and collections for several years are helpful. Particular note should be made of the effect of seasonal variations upon collections and of the

Forecast of Cash Receipts and Disbursements
January to March, 19—

	January		February		March	
	Budget	Actual	Budget	Actual	Budget	Actual
Estimated receipts:						
Cash sales						
Collections from accounts receivable						
Interest income						
Miscellaneous income						
Total receipts						
Estimated disbursements:						
Accounts payable						
Payroll						
Expenses						
Advertising						
Interest expense						
Plant and equipment						
Repayment of bank loan						
Total disbursements						
Estimated excess of cash receipts over disbursements						
Estimated balance beginning of month						
Estimated balance end of month						

FIG. 2. Receipts and Disbursements Method of Cash Forecasting

	MAY			JUNE			JULY		
	Unit Price	Quantity	Revenue	Unit Price	Quantity	Revenue	Unit Price	Quantity	Revenue
Gasoline—barrels									
Premium gas—barrels									
Aviation gas—barrels									
3rd grade gas—barrels									
Kerosene—barrels									
Lube oil—barrels									
Grease—pounds									
Fuel & crude—barrels									
Gas oil—barrels									
Asphalt—tons									
All other products									
Other revenue									
Prepaid freight on sales									
TOTAL REVENUE									
Amount of federal gas taxes									
Amount of federal lub. taxes									
Included in selling prices									
TOTAL SALES REVENUE									
Less discounts									
Worthless debts, etc.									
NET TOTAL SALES REVENUE									
Cash to be received from said revenue on basis experience									
1. Cash & current credit sales collected during current month									
2. From credit sales previous month									
3. From credit sales prior to previous month									
TOTAL RECEIPTS									

NOTE: Data as indicated on this form are reported by months for the full forecast period, each sheet containing data for three consecutive months. Four sheets are required for forecasts covering twelve months while five sheets are required for forecasts covering thirteen and fourteen months. (From The Cash Budget, Policyholders Service Bureau, Metropolitan Life Insurance Co.)

FIG. 3. A Form for Forecasting Sales and Receipts for the Cash Budget

effect of general business conditions upon the length of the collection period. One method of estimating collections from sales is to determine the number of days' sales which are outstanding, as follows:

Sales for December, 1947	$500,000
Accounts receivable, December 31, 1947	150,000
Per cent of sales outstanding (150,000 ÷ 500,000)	30%
Multiplied by number of days in month	31
Days' sales outstanding	9.3

ESTIMATING COLLECTIONS FROM CUSTOMERS
January, 1948

Accounts receivable, December 31, 1947		$150,000
Sales for January, 1948		600,000
Total		$750,000
Deduct:		
Estimated accounts receivable, January 31, 1948:		
9.3/31 of $600,000	$180,000	
Bad debts (estimated)	25,000	205,000
Probable collections, before discounts		$545,000
Less probable cash discounts 1%		5,450
Estimated cash collections		$539,550

When accounts receivable remain overdue for a longer period, the possibility of their becoming uncollectible increases. It is advisable, therefore, to estimate separately collections from accounts receivable overdue 1 month, 2 months, or 3 months, and those which are more than 3 months overdue.

Sometimes the days of uncollected sales are computed as a standard turnover rate or "bogie" to provide a basis for forecasting, as well as a test of collection policy. But inasmuch as collections may vary with the season of the year, it may be advisable to compute these bogies separately by months or seasons. Individual percentage estimates of collections may be made of each month's sales. For example, experience may show that net charge sales made during January will be collected as follows:

January	15%
February	75%
March	7%
Over	1%
Discounts	.75%
Bad Debts	1.25%

In estimating collections from sales, particular attention must be given to the:

Terms of sale.
Trend of business.
Seasonal influences.
Discount policy.
Credit policy.

Forecasting Disbursements.—Anticipated cash disbursements for operating expenses during the period are estimated from budgets of

costs and expenses. The capital budget indicates amounts to be disbursed during the period for capital additions. Where budgeting methods permit, it is preferable to estimate payments to suppliers from the purchase budget rather than from budgets of operating expenses. Since a part of the purchases in a given period may go into materials inventories, the operating expense will not show the total amount of purchases for which the company will have to pay during the forecast period. In estimating cash payments that will be due for materials and supplies, total purchases are added to the accounts payable outstanding at the end of the preceding period, and the accounts payable expected to be outstanding at the end of the period are deducted from the sum of these two. Probable discounts to be taken should be deducted to show the net cash payments that will have to be made during the forecast period.

In estimating payments for wages and salaries, necessary calendar adjustments should be made. Thus, where the forecast is on a monthly basis and wages are paid weekly, due allowance must be made for months with five weekly payrolls.

Cash Forecasts by Adjusted Earnings Method.—The estimated net income for the forecast period is adjusted, under this method, to a cash basis by adding in all transactions which will affect cash but not profit or loss, and eliminating profit and loss transactions which do not affect cash. Depreciation, for example, is added to the estimate of profit, since it does not in itself involve a cash outlay. The excess of collections over sales is added to estimated earnings, since it represents an increment of cash for the period by reducing the investment in accounts receivable. By the same token, an excess of sales over collections is deducted from estimated earnings because it increases the investment in accounts receivable. Expected reductions in inventories are added to estimated earnings, while anticipated increases in inventory are deducted therefrom. Fig. 4 illustrates how this is done.

A variation in the adjusted earnings method of forecasting cash was given by Brelsford (A.M.A. Fin. Mgt. Ser. No. 87). Transactions affecting cash were classified as:

1. Cash gain or loss from operations.
2. Changes in volume or level of activity affecting current assets and liabilities.
3. Other transactions, including capital expenditures, dividend payments, etc.

This relatively simple method of forecasting cash is of value only in a business having reasonably stable operations and income, and where cash reserves are large in relation to requirements. It does not lend itself to more precise timing of cash disbursements to receipts, nor does it facilitate the control of payments. It can be used only by concerns which forecast profits for a future period. Since the cash forecast is based upon estimated earnings for a future period, it can be no more accurate than is the estimate made of earnings.

Balance Sheet Projection Method of Forecasting Cash.—Where a comprehensive budget system is in use, forecasts of balance sheets for future dates are prepared. Some concerns prepare estimated balance sheets for the last day of each month of the forecast period, and thus

Cash Receipts and Disbursements
Quarter ending March 31, 19—

	January	February	March
1. Estimated net profit for quarter	$	$	$
Add:			
Depreciation			
Prepaid insurance and other expense written off			
Excess collections over sales			
Reductions in inventory			
Increase in accounts payable			
Sale of investment securities			
Sale of capital assets			
2. Total			
Less:			
Excess sales over collections			
Payment of accrued taxes			
Increase in inventories			
Decrease in accounts payable			
Purchase of investment securities			
Payment to sinking fund			
Interest on bonds			
Plant and equipment			
3. Total			
4. Increase or decrease in cash balance (line 1 + line 2 — line 3)			
Add cash balance beginning of month			
Add loans from banks			
Cash balance end of month			

FIG. 4. Adjusted Earnings Method of Cash Forecasting

have projections of each item in the balance sheet except cash. An estimate for cash can then be obtained by simple subtraction. Concerns that have used this method claim it is far easier to apply than the receipts and disbursements method, since forecasted balance sheets are prepared in any event, and that it is at least as accurate.

Here also, as with the adjusted earnings method, future cash receipts and expenditures are not forecast item by item, so that timing of disbursements to receipts for businesses with meager cash balances is not facilitated. Also, where earnings are erratic, revisions in cash forecasts must await the preparation of revised balance sheet forecasts.

Working Capital Differentials Method of Cash Forecasting.—Forecasting cash by the working capital differentials method, used in only a few cases, involves projecting current assets and liabilities as of future dates based upon anticipated levels of sales and production. Inventory estimates are based upon the standard numbers of months' supply required, and accounts receivable projections are based upon the number of months' or days' sales outstanding. Figs. 5 and 6 (Metropolitan Life Insurance Co. Policyholders Service Bureau, The Cash Budget)

Projection of Working Capital, Excluding Cash and Investments for 12 Months Ending December 31, 1949

	1948 December Actual	1949					
		January	February	March	June	September	December
ASSETS							
Accounts & bills receivable—commercial	$16,000,000	$17,000,000	$17,000,000				
Accounts & bills receivable—all others	2,000,000	1,900,000	1,800,000				
Materials & supplies	11,200,000	12,900,000	12,800,000				
Finished product	10,900,000	10,700,000	10,700,000				
Deferred charges	750,000	400,000	400,000				
GROSS WORKING CAPITAL (EXCLUD. CASH, ETC.)	$40,850,000	$42,900,000	$42,700,000				
LIABILITIES							
Accounts payable commercial (excluding accounts and drafts payable)	800,000	700,000	750,000				
Accounts & drafts payable	350,000	500,000	1,200,000				
Accounts payable—all others	400,000	400,000	450,000				
Deferred credits	300,000	300,000	300,000				
CURRENT LIABILITIES	$ 1,850,000	$ 1,900,000	$ 2,700,000				
NET WORKING CAPITAL	$39,000,000	$41,000,000	$40,000,000	$41,000,000	$44,000,000	$42,000,000	$40,000,000

FIG. 5. Projection of Working Capital, Excluding Cash and Investments

show a cash forecast using this method. This method has been summarized as follows:

"1. Net working capital at beginning of period, including cash, call loans, and marketable securities.
2. Add total net income.
3. Add noncash items charged to income, and receipts from capital transactions.
4. Deduct disbursements not chargeable to net income, including capital transactions, income taxes, and dividends.
5. Balance equals estimated net working capital at end of month.
6. Deduct estimated working capital necessary for operations, exclusive of cash.
7. Difference equals amount available for bank deposits and investments."

Provision for Contingencies.—The cash requirements of a company always include contingencies. External or internal developments may necessitate cash outlays in excess of forecasts. Strikes, floods, technological and cyclical business changes are more common examples of these.

A reserve for contingencies may be set up out of surplus. Such a reserve is desirable because it reduces possible dividend payments and serves notice on stockholders that developments which will affect the enterprise unfavorably may occur. However, should the contingency occur and actually cause a loss of cash, it must be appreciated that unless a cash fund is provided simultaneously with the establishment of the reserve, adequate provision will not have been made. Where a cash fund of this kind is set up, it may be invested in government securities or otherwise to secure some return.

CASH FORECASTS AND BORROWING.—Where a cash deficiency is indicated for the budget period, arrangements for a bank loan or other credit accommodation should be made without delay. Credit granting institutions ordinarily are more amenable where accommodation is sought in advance of needs, especially if the application for credit is accompanied by a copy of a cash forecast showing the sum required and the probable date of repayment.

Planning for Profit

OBJECTIVES OF PROFIT PLANNING.—Profit planning is the name given to the use of forecasts of profits for the purpose of

1. Increasing the earnings of the enterprise, while
2. Preserving the integrity of the capital investment.

The chief benefit derived from planning profits usually is the analysis which it entails of the financial aspects of the production and distribution policies of the business, to measure their impact upon earning power. Planning for profit is successful only when it also assures preservation of the invested capital of the business. The earnings reported by the accountant for any given year are, at best, an approximation based upon accounting conventions. True profitability can be determined only over a period of years. A business that enjoys a profit of

..... COMPANY

Projection of Consolidated Cash Position—1949

	1948 December Actual	January	February	March	Quarter Ending June 30	Quarter Ending Sept. 30	Quarter Ending Dec. 31	Total
Net working capital at beginning of period, including cash, call loans, and marketable securities	$60,000,000	$59,600,000	$59,770,000	$60,577,000	$59,874,000	$60,144,000	$60,444,000	$59,600,000
Net operative income	500,000	400,000	500,000	600,000	1,450,000			5,850,000
Income from affiliated cos.' sec.	50,000	100,000	75,000	80,000	265,000			1,050,000
Miscellaneous income	100,000	50,000	75,000	70,000	200,000			795,000
TOTAL NET INCOME	$ 650,000	$ 550,000	$ 650,000	$ 750,000	$ 1,915,000			$ 7,695,000
OTHER RECEIPTS:								
Net increase to reserves	250,000	200,000	200,000	200,000	600,000			2,400,000
Stock subscription, mortgages and agreements	20,000	15,000	10,000	20,000	40,000			165,000
Advances from subsidiaries, and repayment of advances	400,000	50,000	400,000	470,000	860,000			3,500,000
Sale of securities	80,000	100,000	50,000	45,000	225,000			870,000
Sale of miscellaneous assets	10,000	5,000	10,000	15,000	30,000			120,000
Miscellaneous receipts	20,000	6,000	14,000	10,000	45,000			165,000
ALL OTHER RECEIPTS	$ 780,000	$ 376,000	$ 684,000	$ 760,000	$ 1,800,000			$ 7,220,000
TOTAL RECEIPTS	$ 1,430,000	$ 926,000	$ 1,334,000	$ 1,510,000	$ 3,715,000	$ 3,900,000	$ 3,530,000	$14,915,000

	1948 December Actual	January	February	March	Quarter Ending June 30	Quarter Ending Sept. 30	Quarter Ending Dec. 31	Total
DISBURSEMENTS:								
Construction	$ 186,000	$ 151,000	$ 131,000	$ 250,000	$ 510,000			$ 2,062,000
Federal taxes	60,000	—	—	75,000	75,000			300,000
Dividends	1,200,000	250,000	—	1,200,000	1,450,000			5,800,000
OTHER DISBURSEMENTS:								
Advances to subsidiaries and repayment of advances	100,000	80,000	150,000	200,000	450,000			1,780,000
Undistributed expense	45,000	50,000	30,000	55,000	140,000			555,000
Purchase of securities	200,000	200,000	220,000	360,000	720,000			2,940,000
Purchase of fixed assets	11,000	15,000	15,000	25,000	65,000			250,000
Interest on accounts and bills payable	16,000	—	—	15,000	15,000			60,000
Miscellaneous disbursements	12,000	10,000	1,000	13,000	20,000			84,000
ALL OTHER DISBURSEMENTS	$ 384,000	$ 355,000	$ 416,000	$ 668,000	$ 1,410,000			$ 5,669,000
TOTAL DISBURSEMENTS	$ 1,830,000	$ 756,000	$ 547,000	$ 2,193,000	$ 3,445,000	$ 3,600,000	$ 3,290,000	$13,831,000
Balance equals estimated net working capital at end of month	59,600,000	59,770,000	60,557,000	59,874,000	60,144,000	60,444,000	60,684,000	60,684,000
Est. necessary net working capital less cash	39,000,000	41,000,000	40,000,000	41,000,000	44,000,000	42,000,000	40,000,000	
TOTAL CASH, CALL LOANS, AND MARKETABLE SECURITIES	$20,600,000	$18,770,000	$20,557,000	$18,874,000	$16,144,000	$18,444,000	$20,684,000	
Less: Standard cash balance and primary reserve	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	
Secondary cash reserve (marketable securities and call loans)	$10,600,000	$ 8,770,000	$10,557,000	$ 8,874,000	$ 6,144,000	$ 8,444,000	$10,684,000	

FIG. 6. Projection of Consolidated Cash Position

20% on the investment for 5 years is not successful if it is then forced to liquidate and returns little or nothing to stockholders. It follows, therefore, that adequate maintenance of plant and equipment, and the accumulation of an adequate fund to finance their replacement, are necessary for the preservation of a concern's capital investment. In much the same way, inadequate development of markets for a company's products through advertising may permit competitors to ease out the enterprise and usurp its position in the industry. Failure to carry on essential research which will maintain a company's competitive position also may result not only in reduced profits for later years, but in a gradual whittling away of the capital value of the business, which is determined chiefly by its capitalized earning power.

Boosting current profits at the expense of the future is futile. For example, a mining company which extracts only high-grade, low-cost ores from a particular vein might show a very substantial current profit, but over a period of years total profits would be cut should it prove unprofitable to return to that vein for the lower-grade, higher-cost ores. But if both types of ore had been extracted simultaneously, the low-grade ore might have been salable at considerable aggregate profit.

BUDGETS AND LONG-TERM FORECASTS.—Budgeting of profits and long-term planning of profits on the basis of forecasts are distinguished by the period of time covered and the amount of detail included in the projections. Lochiel (Natl. Assn. of Cost Accountants Year Book, 1946) described the difference, as follows:

> In our company we think of our budget as a relatively short-term proposition, detailed and closely controlled, while our forecasts go far beyond the budget period and are based on broad assumptions. These forecasts are refined and reworked in more detail as time progresses, and in their turn become our budgets. As a practical matter, then, there is no difference in the preparation of budgets and forecasts since they are the same thing.

LONG-TERM PROFIT PLANNING.—Long-term profit planning, covering a period of 3 to 5 years or longer, is regularly carried on by many companies. The usual procedure is to prepare a long-term forecast of earnings for several years beyond the detailed budget period, and to add a year to the forecast period as each budget year expires. The practice of a large chemical manufacturing company is as follows (The Controller, vol. 14):

> Approximately one month after the submission of the detailed budget for the succeeding year, the general managers are required to submit similar budgets for the four years after that, so that we have a forecast that gives us five years in the future. We recognize that the succeeding four years are not as accurate or dependable as the forecast for the year we are about to enter, but they do give us a general idea of the plans and thinking of our general managers and do give us an indication of what our operating results may be for the next five years. This gives our top management a guide which is valuable to them in setting general policy for the company as a whole.

Long-term profit forecasts are valuable not only in planning for profit, but also in planning capital expansion, formulating financing plans and crystallizing dividend policies.

PROFIT GOALS.—Some writers have suggested that planning for profit should begin with a statement of the amount of earnings desired. They use the formula:

Required Receipts — Desired Profit = Allowable Costs and Expenses

The desired profit is thus provided for first out of the receipts, and planning is designed to increase receipts or reduce allowable costs and expenses, or both, to achieve the sought-for objective. The amount of profits to be provided may be stated initially as a percentage of net worth, as well as some dollar amount. Where a percentage of net worth is used, it is well to bear in mind that net worth may be the residual amount left after numerous adjustments such as reorganizations, write-downs of asset values, etc., so that it may be a poor basis upon which to base profit objectives.

In actual practice, earnings may vary widely from the level of profits desired in the plan. Nevertheless, this planning technique has many advocates who argue that it is far better to work for a profit goal that can be approximated at best than to have no earnings objective. Furthermore, it is maintained, managements that have no planned profit goal actually are seeking some level of earnings though it is not specified, and a clear statement of desired earnings and how they may be achieved helps to attain the goal.

Replying to a survey by the National Industrial Conference Board (Budgetary Control in Manufacturing Industry) one company stated:

> . . . this company believed that it was well to be reminded (1) that return on investment is the result of turnover multiplied by the percentage of profit on sales and (2) that turnover is to be based on total investment, not alone on finished stock, total stock, or even total working capital. The budgeted return on investments is the figure that aids the executives in safeguarding the dividends on capital stock. The basic formula to be kept in mind is that $R = T \times P$, that is, Return on Investment equals Turnover times the Percentage of Profit on Sales. The figures to be used for permanent investment are those prior to depreciation; otherwise the decreasing amount each year would fictitiously increase the turnover rate.

THE BREAK-EVEN CHART IN PLANNING PROFITS.—A break-even chart is often used in profit planning. Fig. 7 is a chart prepared by Brelsford (A.M.A. Fin. Mgt. Ser. No. 87) for this purpose. The break-even point on the chart shows the level of sales at which operations produce neither a profit nor a loss. Break-even charts must be prepared with great care, as an error in estimating fixed and variable costs could greatly distort the break-even point and lead to faulty policy decisions. Break-even charts can be prepared to enlighten management on various phases of profit planning, such as the effect of changes in costs upon profits. A full discussion of break-even charts and formulas for the analysis of profit variation is to be found in the Cost Accountants' Handbook.

PROFIT AND LOSS FORECASTS.—Profit planning for shorter periods is usually based on profit and loss statements by months. Long-term profit forecasts are normally prepared for 6- or 12-month intervals after the first year.

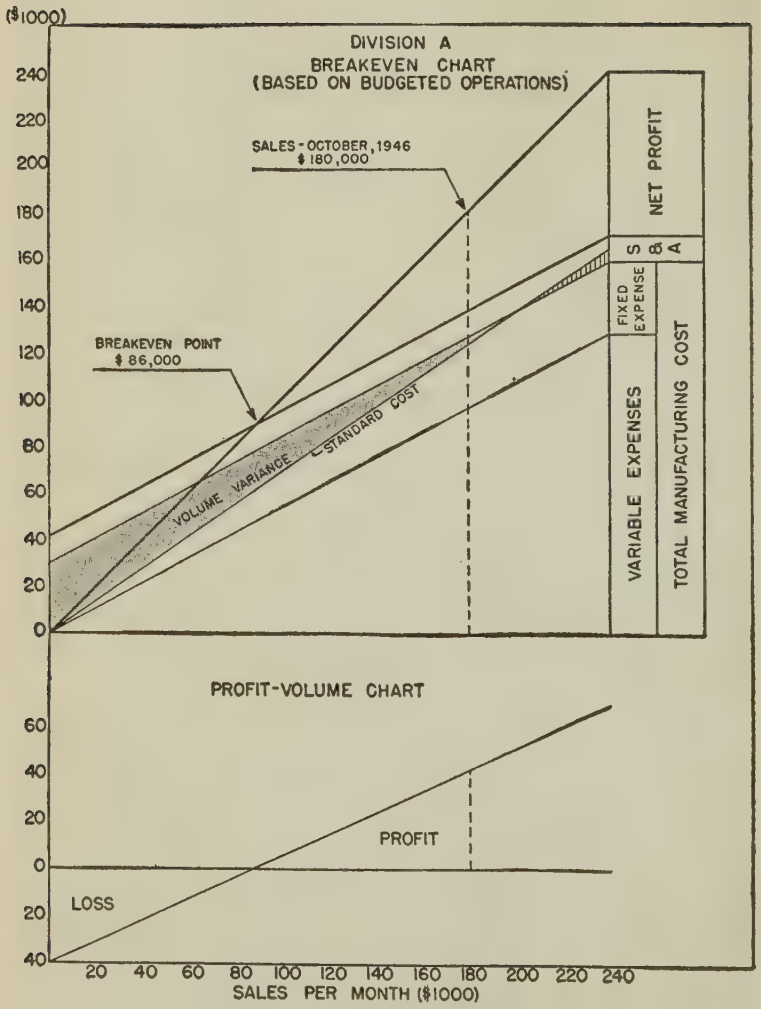


FIG. 7. Break-Even Chart

OPERATING FORECAST

ABC Company — Division A

December, 1946

	Actual October	Forecast									
		November	December	Fourth Quarter 1946	Year 1946	January	February	March	First Quarter 1947	Second Quarter 1947	Third Quarter 1947
Net Sales	$ 180	$ 185	$ 186	$ 551	$1,720	$ 189	$ 190	$ 198	$ 577	$ 642	$ 660
Cost of Sales at Standard	123	126	127	376	1.076	131	131	137	399	450	476
Gross Profit at Standard	$ 57	$ 59	$ 59	$ 175	$ 644	$ 58	$ 59	$ 61	$ 178	$ 192	$ 184
Variances:											
Material	$ 9	$ 10	$ 10	$ 29	$ 70	$ 10	$ 10	$ 11	$ 31	$ 39	$ 40
Productive Labor	6	6	6	18	74	7	7	8	22	21	18
Manufacturing Expense:											
Volume	3	2	2	7	44	1	1	(1)	1	(9)	(12)
Revision of Standards	1	1	1	3	10	1	1	1	3	3	3
Controllable	9	9	9	27	170	7	7	6	20	9	—0—
	$ 28	$ 28	$ 28	$ 84	$ 368	$ 26	$ 26	$ 25	$ 77	$ 63	$ 49
Gross Profit	$ 29	$ 31	$ 31	$ 91	$ 276	$ 32	$ 33	$ 36	$ 101	$ 129	$ 135
Divisional Selling and Adm. Expense	10	10	10	30	120	10	10	10	30	30	30
Operating Profit	$ 19	$ 21	$ 21	$ 61	$ 156	$ 22	$ 23	$ 26	$ 71	$ 99	$ 105
% of Sales	10.6%	11.4%	11.3%	11.1%	9.1%	11.6%	12.1%	13.1%	12.3%	15.4%	15.9%

(000 omitted)

FIG. 8. Estimated Profit and Loss Statement

The form of the estimated profit and loss statement should correspond to that which the company uses in its regular financial statements, to facilitate the work. It is usually desirable to round off even hundred dollars.

Fig. 8 gives an estimated profit and loss statement or operating forecast prepared by Brelsford. It should be noted that cost of sales has been calculated from standard costs, and variations for material, labor, and manufacturing expenses have been estimated.

Concerns which produce a large number of products prepare estimated profit and loss statements by products or product group. Thus, one large company prepares 20 estimated profit and loss statements by products monthly.

Balance Sheet Projections

USES OF BALANCE SHEET PROJECTIONS.—A projection of a concern's balance sheet gives a preview of the company's financial condition on a specified future date, based on the plan of operations adopted. Among uses made of balance sheet forecasting are:

1. To note the flow of reinvested profits into current and fixed assets.
2. To aid in adapting operations to seasonal variations.
3. To determine financing requirements and desirable methods of financing, particularly as between short-term borrowing, bond sales, stock flotations and reinvested earnings.
4. To check on the accuracy of operating budgets.
5. To aid in planning capital expansion.
6. To forecast cash balances and requirements.
7. To facilitate profit planning designed to secure an adequate return on the investment in the enterprise.
8. To determine the effects of financial policies.
9. To maintain the ratio of current assets to current liabilities, and other financial ratios, at a desirable level.

PERIOD OF BALANCE SHEET PROJECTION.—Many companies prepare balance sheet projections on a monthly basis. Unless the projection is used to forecast cash balances, it is usually sufficient to project for periods of two or three months. Some concerns prepare a single balance sheet projection for the whole budget period, at 6-month intervals. Where operations are unstable and projections are difficult to make in consequence, some businesses refrain from preparing a projected balance sheet until the forecast period is well under way and the ability to adhere to the budget demonstrated by actual results.

The projected balance sheet ordinarily has the same form and content as the regular balance sheet of the company to facilitate preparation and interpretation, though frequently it is condensed to show only more significant items. Fig. 9 shows a projected balance sheet. Where a complete budgetary system is in use, the additional work involved in preparing projected balance sheets is usually slight because most of the projected items are to be found in the several sections of the budget. Only a few, such as deferred charges, must be projected. Accounts receivable, for instance, are estimated by adding to the opening balance of accounts receivable the amount of the estimated sales on

account, and deducting therefrom estimated collections during the period. Similarly, the other balance sheet items are projected on the basis of data contained in the sales, cost and expense budgets.

Inasmuch as the budget, together with a forecast of the balance sheet, will normally be presented to top management prior to the beginning of the period to which it applies, it is usually necessary to estimate also the balance sheet as it will be at the beginning of the period. The actual beginning balance sheet can then be substituted in the forecast at a later date. Since the projected balance sheet is an estimate, it is usually desirable to present all figures in round hundred dollars to ease computations and to emphasize that the figures are only estimates.

To facilitate financial planning, all liabilities should be shown on the balance sheet forecast. Thus, federal income taxes payable on the year's income should be listed among current liabilities as a "provision for federal income taxes," on the basis of the profit forecast in the Estimated Profit and Loss Statement. If the balance sheet is being prepared a year in advance, the tax liability should be computed on the basis of current rates of taxation. Establishment of provision for taxes which will not be payable until after the close of the period places a corresponding amount of current assets at the disposal of the business. Adequate reserves should be set up for contingencies which may arise during the forecast period.

REVIEW OF BALANCE SHEET PROJECTION.—The basic purpose of predetermining balance sheets for future periods is to test in advance the consequences of the financial program under consideration. Each item of the balance sheet projection should be compared with the beginning balance sheet to uncover unhealthy or undesirable trends, as a guide to financial planning. By applying the same type of ratio and trend analysis to the elements of the balance sheet projection as will be used subsequently by a banker or other creditor, the management can take corrective action in time.

EARNED SURPLUS PROJECTION.—A forecast of earned surplus should accompany the projected balance sheet. Typical of such a forecast is the following:

STATEMENT OF ESTIMATED SURPLUS
for Year Ending December 31, 1947

Estimated earned surplus, December 31, 1946		$.....
Plus estimated profits for 1947.....	$.....	
Less:		
Provision for disputed federal income tax..	.....	
Dividend on common stock ($2 per share)..	.....	
Dividend on preferred stock ($1.50 per share)	.....	
Estimated increase in earned surplus.....		.....
Estimated earned surplus, December 31, 1947.....		$.....

Such a forecast is of value in formulating and testing dividend policy, in the choice of par or stated values for capital stock, and in measuring the impact of mergers and other developments upon the surplus position of the enterprise.

BALANCE SHEET FORECAST
ABC Company, December, 1946

	Actual	Forecast					
	October 31, 1946	November 30, 1946	December 31, 1946	January 31, 1947	March 31, 1947	June 30, 1947	September 30, 1947
Current Assets:							
Cash	$ 550	$ 575	$ 545	$ 595	$ 555	$ 565	$ 700
Accounts Receivable	900	925	930	945	990	1,070	1,100
Inventories	1,800	1,850	1,860	1,890	1,980	2,140	2,200
TOTAL CURRENT ASSETS	$3,250	$3,350	$3,335	$3,430	$3,525	$3,775	$4,000
Current Liabilities:							
Accounts Payable	$ 250	$ 260	$ 260	$ 265	$ 275	$ 300	$ 310
Accrued Charges	270	280	280	285	295	320	330
Provision for Income Taxes:							
Income Taxes—Current Year	215	255	295	40	135	325	525
Income Taxes—Prior Year	50	50	—0—	295	220	145	70
Total Income Taxes	$ 265	$ 305	$ 295	$ 335	$ 355	$ 470	$ 595
Dividends Payable	—0—	45	—0—	—0—	—0—	—0—	—0—
TOTAL CURRENT LIABILITIES	$ 785	$ 890	$ 835	$ 885	$ 925	$1,090	$1,235
NET CURRENT ASSETS	$2,465	$2,460	$2,500	$2,545	$2,600	$2,685	$2,765
Current Ratio	4.1:1	3.8:1	4.0:1	3.9:1	3.8:1	3.5:1	3.2:1
Other Assets:							
Other Assets	$ 15	$ 15	$ 15	$ 15	$ 15	$ 15	$ 15
Property, Plant and Equipment—Net	2,000	2,025	2,050	2,075	2,125	2,300	2,500
Intangible Assets—Net	10	10	10	10	10	10	10
Deferred Charges	25	25	25	25	25	25	25
	$4,515	$4,535	$4,600	$4,670	$4,775	$5,035	$5,315
Capital Stock and Surplus:							
Capital Stock	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000
Capital Surplus	50	50	50	50	50	50	50
Earned Surplus	1,465	1,485	1,550	1,620	1,725	1,985	2,265
	$4,515	$4,535	$4,600	$4,670	$4,775	$5,035	$5,315

FIG. 9. Projected Balance Sheet (000 omitted)

Financial Planning for Long-Term Expansion

NEED FOR PLANNING IN EXPANSION.—Coordinated planning is necessary for expansion on a sound financial basis. The objective of such expansion is to increase, or at least to maintain, profits without jeopardizing the financial stability and strength of the enterprise. Expansion proposals that do not further this objective should not be undertaken.

Long-term planning necessarily involves a wider margin of error than monthly or annual forecasts. It is the more important, therefore, that they be based on conservative appraisals of the outlook. A sudden spurt in demand is not sufficient basis for expanding productive capacity, unless it is likely to continue. A sales forecast covering several years is a very difficult undertaking, even for staple products. Similarly, estimates of the cost of current and fixed assets required to carry on a larger volume of business may prove wide of the mark. Estimates used in any long-term expansion plan should be revised periodically.

There are exceptional occasions, as in the case of aircraft manufacturers following World War II, when it became necessary to plan for contraction rather than expansion. Similar techniques are applicable.

FACTORS ENTERING INTO EXPANSION PLANNING.—The following factors must be considered in planning long-term expansion:

1. The long-term goal of the company.
2. Forecast of economic conditions over the period.
3. Long-term forecasts of demand and selling prices.
4. Possibility of meeting anticipated larger demands without expansion.
5. Required expansion of plant and equipment to meet estimated sales demands.
6. Cash outlay for such expansion of plant and equipment, by years.
7. Production costs at increased volume.
8. Selling and advertising appropriations required each year to dispose of increased output.
9. Increase in working capital required to finance additional production.
10. Summary of cash required each year for
    a. Plant and equipment outlays.
    b. Increase in working capital.
    c. Selling and advertising expenses.
11. Profits estimates.
12. Ability to finance requirements.

LONG-TERM GOAL OF THE COMPANY.—As an essential guide to planning of expansion, top management should ask itself where it wants to lead the enterprise during the next "X" number of years. What does it hope will be the status of the business at the end of that period? Frequently it will be found that there is wide difference of opinion among executives and directors as to such ultimate goals. It is helpful to put the answers to this question on paper in terms of ultimate desired sales volume, competitive status in the industry, character and quality of products, unit costs and profits.

FORECAST OF ECONOMIC CONDITIONS.—Plant expansion which is started at a peak of business prosperity may not be completed until after a depression has set in, so that increased capacity may become available at a time when sales and prices are declining. Also, costs of construction are highest during a period of prosperity. Other things being equal, therefore, it is best to expand in less prosperous periods when construction costs are low. If conditions are not propitious for the issuance of securities at such times, it may be necessary to use cash on hand or short-term borrowings to finance the expansion, bonds or stock being sold later when the capital markets become more favorable. Businesses whose financial positions are relatively weak obviously should not undertake expansion on this basis, for they may become financially embarrassed if the depression persists and security markets remain unfavorable for new financing by them.

LONG-TERM FORECASTS OF DEMAND AND SELLING PRICES.—The success of expansion is often dependent mainly upon the accuracy of a long-term sales forecast. To check such a forecast, the management will want to know:

1. Whether increased demand is temporary, or whether it will continue for a longer period of years.
2. If demand can be stimulated further by larger selling and advertising outlays.
3. What will be the probable trend of selling prices? Sales income is the product of volume and prices. A relatively small decline in selling prices may offset a considerable expansion in unit sales.
4. What are competitive conditions? An expanding trend in demand for one concern may be checked by larger output of competitors, the entry of new producers into the business, more imports or inroads by substitute products into total consumption.

Graphic charts may be of considerable assistance in projecting sales as a guide to expansion plans.

LARGER SALES WITHOUT EXPANSION.—Consideration should be given as a matter of course to the possibility of meeting a larger demand for the company's products by adding another shift, by stepping up efficiency and by more rapid turnover of working capital. Such expedients are particularly desirable where the stability of demand in the future appears questionable.

ESTIMATING EXPANSION REQUIRED.—The need for additional productive capacity should be related to factors such as the number of machines, floor space, or time units required. For example, if a plant has 6,000 machines, each capable of producing 100 units per year, at 80% of capacity (to allow for breakdowns, retooling, etc.) maximum annual output is 480,000 units. If the sales forecast is 475,000 units for 1949, 525,000 for 1950, and 600,000 in 1951, it is evident that consideration must be given to plant expansion some time in 1949. This is a mere rule-of-thumb procedure, but it is helpful in making expansion requirements more concrete. Such coordination of plant needs with sales forecasts is done by top management in close consultation with the production and sales managers, engineers, and market experts.

Whenever possible, expansion of plant and equipment should be carried on in sections or units. Thus, expansion of a chemical plant might call for two separate units, each capable of producing 100,000 gallons

rather than a single new unit producing 200,000 gallons. Should demand fall short of expectations later, it is then possible to scale down the expansion program or to operate one unit at capacity and close the other if both are actually constructed. Also, each unit can be put into operation as rapidly as it is completed, so that it can begin to add to profits with a minimum of delay.

PRODUCTION COSTS AT INCREASED VOLUME.—Since the effect on profits is the ultimate guide to expansion, the latter's effect on production costs, including depreciation on new plant and equipment, should be weighed carefully. A larger plant may raise overhead costs so that the break-even point in operations is lifted to a serious extent. Thus, if an increase in capacity of 50% is contemplated, costs might be calculated for actual sales increases of 15%, 30% and 50%. These computations may indicate that a particular expansion program would add to profits only when a sales rise of almost the full 50% is achieved.

SELLING AND ADVERTISING COSTS.—Selling and advertising expenses to dispose of additional production should be projected in advance. Sometimes only a temporary increase in such outlays is required. At other times a permanent expansion of such expenses is needed, making expansion of dubious wisdom.

INCREASED WORKING CAPITAL REQUIREMENTS.—Expansion will add to cash required to finance current operations, as well as to inventories and receivables. Failure to provide for such additional current asset needs could lead to financial embarrassment.

FINANCIAL REQUIREMENTS OF EXPANSION.—The financial requirements of a plant expansion program are the total of:

1. Outlays required for expansion of plant and equipment.
2. Increased working capital needs.
3. Special appropriations for selling and advertising campaigns.
4. Operating losses that may be incurred on new facilities pending the time they are placed on a profitable basis.

The board of directors will decide how this sum shall be provided, if the expansion program is approved. It can be financed, at least temporarily, from depreciation and reinvested earnings, as well as by borrowing and the sale of capital stock. If a business has a large cash balance for contingencies, this may be drawn upon for the purpose.

A typical summary calculation of the financial requirements of an expansion program follows:

CALCULATION OF FINANCIAL REQUIREMENTS FOR EXPANSION OF PLANT AND EQUIPMENT, 1948–50

Year	Capital Outlay for Plant Expansion	Increased Working Capital Required	Special Selling and Advertising Appropriations	Total Requirements	Less Cash Obtainable from Depreciation Allowances and Estimated Profits	Cash Requirements
1948.....	$1,500,000	$125,000	$150,000	$1,775,000	$200,000	$1,575,000
1949.....	1,250,000	100,000	100,000	1,450,000	400,000	1,050,000
1950.....	1,250,000	75,000	100,000	1,425,000	550,000	875,000

It will be noted from the above table that cash requirements to finance expansion are estimated at $1,575,000 for 1948, $1,050,000 for 1949 and $875,000 in 1950. Arrangements can be made to raise the sums required in time from internal or external sources, on the basis of this computation.

THE "10% FACTOR."—Considering that the estimates used are at best only intelligent guesses, it is advisable to add a margin of safety. But this does not justify indiscriminate use of "10% for the margin of error." Optimists are inclined to add 10% to sales forecasts and to deduct 10% from cost estimates. Pessimists reverse the process, adding 10% to costs and deducting 10% from sales estimates. Where estimates have passed through three or four echelons before reaching the top management for final approval, several allowances may have been made for this "10% margin of error," without disclosure thereof on the estimates themselves.

PROFITABILITY OF CONTEMPLATED EXPANSION.—Profit and loss projections can show the effect of contemplated expansion upon earnings. These reflect estimates of sales and costs following expansion, including such items as:

1. Additional depreciation of fixed assets.
2. Repairs and maintenance of new equipment.
3. Property taxes, insurance, etc.
4. General and administrative expenses.
5. Income taxes on the additional profits to result from expansion.

If bonds are to be issued to finance the expansion, interest on and retirement of the bonds must be allowed for. Where new stock is to be sold for this purpose, the resulting additional earnings should be sufficient to pay dividends and leave an extra margin of profit to the old stockholders who, in the final analysis, are assuming a substantial risk in undertaking the expansion of facilities. Where expansion is financed by the reinvestment of earnings, these ploughed-back profits constitute an additional investment on the part of the stockholders, who should expect a reasonable profit thereon.

Business Conditions and Financial Planning

INFLUENCE OF EXTERNAL FACTORS.—Financial planning must be adapted not only to internal factors of the business, but equally to external economic conditions. External conditions may have a more potent influence upon sales at any given time than the ability of management or the quality of the product. It is seldom that management deteriorates rapidly, but economic conditions can violently affect sales and profits.

Financial planning involves:

1. A forecast of economic conditions for a future period.
2. An appraisal of how the business may be affected thereby.
3. Adjustment of financial policies accordingly.

FORECASTING BUSINESS CONDITIONS.—Economists recognize three major types of business fluctuations. First, there is the long-term trend, which may extend over a period of many years; sec-

ond, the business cycle; and third, seasonal variations within the year. The very first step in planning is to prepare a forecast of economic conditions. The long-term trend is of particular importance for newer "growth" industries and others that have passed their prime and are declining. Cyclical forecasts beyond two or three years are of limited value, as a rule. But for each forecast an appraisal of the stage of the business cycle, a forecast of its duration and a prediction of the ensuing phase of the cycle are valuable.

The practice of a large floor-covering company in adjusting its internal planning to a forecast of economic conditions was described as follows (The Controller, vol. 14):

Normally these long-range forecasts cover periods of three to five years, and frequent revisions are necessary due to unforeseen changes in the national economy.

In making a long-range forecast, the heads of the sales division collaborate with the Forecasting Committee in estimating sales volumes by commodities. The Forecasting Committee consists of the Controller, the Economist, the Treasurer and the supervisor of the Production Planning Department. After the sales volumes have been determined, the factory cost of sales, selling and administrative expenses are developed by commodity groupings with the help of the Production, Engineering and Administrative Departments. The forecast for the company as a whole is then drawn together by summarizing these findings.

We have just completed a five-year forecast of sales and profits which has been developed on the bases of two assumptions. The first assumes a continuing growth in the present high volume business to be broken by sharp recession in 1950. The second assumption is that the present volume of business will be broken by a short recession in 1948 followed by a continuation of high volume business through 1950.

A large electrical company described its procedure thus (The Controller, vol. 14):

Last year, we introduced a new program which I will describe.

This revised plan is based on the same analysis and interpretation of general business conditions, of business cycles, that we used in the pre-war program, but the organization of the work is quite different. In the pre-war plan, we asked some thirty-odd managers and other executives to make forecasts for the coming 12 and 18 months, and the official forecast was the average of these thirty-odd forecasts. This method might be called the democratic method—but a majority vote taken on a highly technical question does not necessarily give the right answer.

In our post-war forecasting plan, the job has been turned over to a small committee of men who have the most experience and information. This committee reports to our Planning and Development Committee, which is a top-ranking planning committee consisting of seven headquarters officers. Use is made of correlations with other data, such as the Federal Reserve Index of Production, and the necessary business judgment is applied to the results by the discussions and final approval of the forecast by the officers of the Planning and Development Committee.

There are four parts to the formulation of a forecast under this plan:

1. A long-range picture or projection of business prospects is the foundation. This is the only part in which the analysis of the business cycle enters. It is essentially a projection of past experience.
2. A specific forecast is made by the Forecast Committee for the next 12 months (or longer period) based on the picture of business

prospects, and more definitely on correlations with the best estimate of the Federal Reserve Index that can be made.

3. A check forecast is made by operating division or plant managers based on plant capacities, and specific market and competitive conditions for our various products.
4. The forecast, made by the Forecast Committee, is submitted to the Planning and Development Committee for approval.

ADJUSTING THE BUSINESS TO ECONOMIC CONDITIONS.—In adjusting financial planning to the business cycle, particular attention should be given to the following aspects:

Cash for contingencies.
Size and composition of inventories.
Accounts receivable and credit policies.
Reserves for contingencies.
Amounts and maturity dates of bank loans.
Fixed charges for long-term obligations.
Relation of fixed to total costs.
Purchases of materials and equipment.

Maintenance of a good current ratio (ratio of current assets to current liabilities) is not sufficient to guard against the effects of adverse business developments. If collections of accounts receivable become slow and inventories cannot be disposed of because of an oncoming depression, a business may find its cash insufficient to meet current obligations. But if cash and government securities were accumulated during prosperity, the enterprise is prepared for unfavorable developments.

SIZE AND COMPOSITION OF INVENTORIES.—A good system of inventory control will assist in relating finished goods inventory to varying sales prospects, and inventories of raw materials and goods in process to shifting production schedules. Coordination of production to sales is important at all times, but particularly so during the latter part of a period of prosperity and the period of liquidation that follows, when the risk of inventory losses is greatest.

ACCOUNTS RECEIVABLE AND CREDIT POLICIES.—Loose credit policies during periods of prosperity will result in poor experience with accounts receivable during the subsequent recession. Credit policies should be tightened during prosperous periods when orders are more plentiful, while credit policies can be liberalized to some extent during a depression, when weaker concerns have been weeded out and more orders are needed.

RESERVES FOR CONTINGENCIES.—During periods of prosperity, provision should be made for contingencies which may arise during a period of liquidation and depression by setting aside reserves out of surplus. Such action will restrict the size of the surplus available for dividend declarations, and thus conserve the resources of the enterprise.

AMOUNTS AND MATURITY DATES OF BANK LOANS.—Every effort should be made to repay bank loans during periods of prosperity, except for borrowing to finance purely seasonal requirements.

FIXED CHARGES ON LONG-TERM OBLIGATIONS.—Fixed charges must be paid not only during prosperity, when this constitutes no problem, but also during a depression. Refinancing of obli-

gations should be sought when capital markets are favorable to reduce annual interest and sinking fund requirements, and preferably debt should be paid off from earnings or stock sale at such times.

RELATION OF FIXED TO TOTAL COSTS.—If fixed or overhead costs are high in relation to total costs, the business is vulnerable in a period of declining sales. A relatively small decrease in volume could then result in operating losses. A solution may be found through reductions in overhead. Where this requires new facilities, these may be acquired from earnings or stock sales in prosperity.

PURCHASES OF MATERIALS AND EQUIPMENT.—Where the financial condition of the enterprise permits, purchases of materials, parts, and equipment should be stepped up in depression periods to take advantage of low prices which usually prevail at that time. Needless to say, such a purchasing policy should carefully avoid the risk of acquiring unsalable stock piles of obsolete and out-of-style goods. Conversely, inventories should be held down as far as feasible when prices are high, and raw material inventories should be hedged where feasible. Many businesses have found, however, that efforts to forecast commodity price changes involve a high degree of error, and so prefer to adjust purchasing to production schedules, rather than to prognostications of price movements.

Organization for Financial Planning

RESPONSIBILITY FOR FINANCIAL PLANNING.—Financial planning is a function of top management. Responsibility for such planning must rest with those who have the authority to make major decisions and whose position gives them the over-all view of the business which is essential to proper financial planning.

Financial planning may be divided into major and minor planning. Major financial plans are drawn up or approved by top management. These lay down the broad objectives which serve as a guide to lower echelons of managerial authority in the preparation of minor financial plans.

Financial planning may start either at a high level, such as the board of directors or the chief executive, and be turned over to a committee or to an official like the controller for development and completion, or it may begin with the controller or treasurer and travel upwards either to the chief executive, the board of directors, or a committee of the board.

Corporate financial planning is a responsibility of:

1. The board of directors.
2. Committees of the board.
3. The chief operating officer.
4. The chief financial officer, who may be a vice-president in charge of finance, the controller, or the treasurer.

Active operating responsibility for financial planning is frequently placed with the chairman of the finance committee, a vice-president in charge of finance, the treasurer, or the controller. In smaller companies, the president may perform the functions of the chief financial officer.

Duties of the treasurer and controller vary to a great extent among

corporations, one or the other being the superior officer depending upon the organizational set-up, the ramifications of the concern's activities, and the forcefulness and reputation for financial acumen of the individuals concerned. The controller may be appointed by the president or elected by the board of directors. In many cases, the controller is also the vice-president in charge of finance.

The director of the budget in a corporation is usually made responsible to the chief financial officer, although he sometimes reports directly to the president.

FINANCIAL PLANNING FUNCTIONS OF THE BOARD OF DIRECTORS.—The functions of the board of directors in financial planning may be specified in the corporate by-laws, but this is not usual. The broad responsibilities which the law places upon the board of directors, however, necessarily imply that they will assume this task. Holden, Fish, and Smith (Top-Management Organization and Control) report:

> In substantially all the companies reviewed, the board of directors establishes broad basic policies, handles major financial matters, selects the officers and sets their salaries, and takes care of other matters of a similar character. In addition, it receives reports from the management on the company's operation since the last meeting, and passes judgment as to whether, in view of circumstances, the results are satisfactory.

R. A. Gordon in a study published by the Brookings Institution (Business Leadership in the Large Corporation) commented on the above statement as follows:

> How much of the activities that these writers attribute to directors represents actual practice in the particular companies that were studied, and how much is merely a summary of what was found in the companies' by-laws, we are not in a position to say. We should suppose, from our own study, that this part of their analysis reflects conditions as they are supposed to be rather than conditions as they actually are.

Gordon, reporting the results of his own study, states:

> . . . executives rather than directors make the bulk of decisions which enter into the leadership function in the large corporation. This is particularly true of initiation. Origination and formulation of proposals almost invariably come from the executive group, and directors, insofar as they participate at all in the decision-making function, do so through their power to veto or approve decisions laid before them by the chief executive. By virtue of this fact, the creative and dynamic elements of business leadership cannot be expected to develop out of the deliberations and activities of the board as a formal group . . . but absence of intiation by the board holds today in the larger corporation even for major financial matters, including investment policy and expansion programs. However real in some cases may be the board's veto power over the chief executive's recommendations in these fields, the initiation—seeing the need for action and formulation of a plan—comes from the executive group, even on the broadest financial questions.

The extent to which the board of directors dominates financial planning in practice varies widely. Some boards leave such planning almost entirely to operating officials. In other cases, the board consists in large part of these operating officials. Frequently the board discusses basic long-term objectives of the enterprise, setting financial goals for the officers to achieve.

The board of directors is responsible, in any event, for dividend policies, the establishment of reserves out of surplus and changes in capital structure. The by-laws of most corporations provide that appropriations above a specified sum for capital expansion or rehabilitation of plant and equipment must be approved by the board. Holden, Fish, and Smith found that "the determination of the amount and sources of working capital is a board function in approximately one-half of the companies and a management function in the remainder. There are by-law provisions in several cases which stipulate this action as a board function. In one instance a by-law provision even specified the actual amount of money to be reserved as working capital." With reference to subsidiaries, they found that "in only one-fourth of the companies are financial relationships with subsidiary or affiliated companies a matter for board consideration. Where the management has authority for this function, a few companies state that the board sets limits for loans or credits within which management has complete freedom of action."

By-laws usually provide that the board of directors should select the banks in which the corporation will maintain its accounts. Pension and profit-sharing plans are almost invariably subject to board approval, as is usually the case with fixing compensation of corporate officers.

FINANCIAL EXECUTIVES ON THE BOARD OF DIRECTORS.—Financial executives are frequently included on the board of directors, and so participate in financial planning in a dual capacity. Holden, Fish, and Smith, in a survey of 31 large companies, found the following representation of financial executives on boards of directors:

Finance Executive:	
Through Vice-President	5 companies
Through Treasurer	5 companies
Through Secretary-Treasurer	5 companies
Accounting Executive:	
Through Vice-President-Comptroller	3 companies
Through Comptroller	2 companies

The president in every case was a member of the board, as was the executive vice-president (which position occurred in one-third of the companies). Where operating financial executives are on the board, the latter keeps in closer touch with financial planning and operations. Financial executives, in turn, are in better position to implement policies favored by the board, and to integrate their own financial planning with that of higher authority.

REPORTS TO THE BOARD OF DIRECTORS.—To aid the directors in planning the broader financial phases of business operation, adequate reports are required. Some companies furnish board members with fairly detailed financial reports at each meeting, supplemented with interim reports as these become available. Where the board passes upon the budget, an opportunity should be afforded directors to acquaint themselves with the facts and figures before asking them for formal approval. Budget estimates should be supported by adequate data on past results, current conditions and estimates of the effect of the plan of operations upon the financial condition and profits of the enterprise.

Holden, Fish, and Smith cite an interesting practice followed by one management at its monthly board meetings:

> A set of large wall charts is prepared each month. These charts present financial, production and sales data. Even the balance sheet is drawn up in magnified form. The purpose of these charts is to focus the attention of board members on each item being discussed by the president. Prior to adopting this practice, the directors were provided with reports, and during the president's discussion they were often observed thumbing through the reports and giving their attention to pages or portions not being discussed. Now, after the full presentation by the president, the directors are handed the reports as heretofore.

BOARD COMMITTEES.—To conserve the time of board members and to expedite planning and action, the majority of boards of larger corporations have appointed committees of directors for special functions. The executive committee, or a separate finance committee, often plays a leading role in financial planning.

The National Industrial Conference Board, in a survey of 497 large and small corporations, found that 286 of them had at least one committee of directors (Prevailing Practices Regarding Corporation Directors.) The committees of directors encountered and the frequency of their occurrence were as follows:

Name of Committee	Number of Corporations Where Found
Executive	241
Finance	49
Salary	22
Trust	15
Bonus, profit-sharing and pension	11
Audit	11
Other	66
	415

Where a corporation does not also have a finance committee, the executive committee will normally include in its duties the usual functions of the finance committee. The finance committee, where it exists, is responsible for planning finances. Duties of the finance committee vary, but they invariably include consideration of the budget and of the financial policies reflected in the budget. Proposals for capital expenditures above a prescribed minimum, changes in capitalization, new financing, dividend declarations, the setting up of reserves and salaries of officers and employees above a stated level are passed upon by the finance committee, which recommends action to the board of directors.

SECTION 17

WORKING CAPITAL

CONTENTS

PAGE

Nature of Working Capital

Definition of working capital 709
Types of working capital 709
Excess working capital 710
Circular flow of working capital 711
The working capital cycle (*f.* 1) 711

Administration of Current Assets

Cash 712
Investment of surplus cash 712
Time deposits in banks 712
Short-term Treasury obligations .. 713
Long-term Treasury obligations .. 713
Corporate securities 713
Loans to officers or employees 713
Bankers' acceptances, commercial paper, and loans to brokers 713
Tax considerations 713
Receivables 714
Inventories 715
Objectives of inventory control 715
Factors determining size of inventory investment 715
Inventory control standards 716
Inventory valuation 717

Working Capital Requirements

Factors affecting working capital needs 718
General nature of business 719
Period of manufacture and cost of product 719
Turnover of inventories 719
Turnover of accounts receivable 719
Terms of purchase 719
Terms of sale 720
Expansion of business 720
Seasonal variation 720
Inherent hazards and contingencies.. 720

PAGE

Cyclical and secular changes 720
How large a surplus of working capital? 721

Sources of Working Capital

Raising permanent working capital.. 721
Short-term borrowing 722
Financing the small business 722
Raising variable working capital 722
Bank loans 723
Accounts receivable financing 723
Inventory financing 724
Depreciation as a source of working capital 725
Flow of funds illustrating conversion of fixed assets into working capital (*f.* 2) 726
Tax reserves 725

The Working Capital Budget

Scope of budget 727
Preparation of working capital budget 727
Example of a working capital budget (*f.* 3) 728–730

The Analysis of Working Capital

Statement of variation in working capital 731
Comparative balance sheet (*f.* 4) 731
Statement of variation of working capital (*f.* 5) 732
Working capital ratios 732
Working capital ratios of manufacturers (*f.* 6) 734–735
Working capital ratios of wholesalers (*f.* 7) 736
Working capital ratios of retailers (*f.* 8) 737
Liquidity ratio 733

SECTION 17

WORKING CAPITAL

Nature of Working Capital

DEFINITION OF WORKING CAPITAL.—The term working capital is variously defined for different purposes. To the business man, working capital comprises the current assets of the business, however obtained. It is common for a business man to say that he borrows at short term from the bank to increase his working capital. By this he means he increases his current assets, but obviously not the excess of current assets over current liabilities. Economists, also, use the term working capital to mean all current assets in a business, however derived. The credit man, the accountant and the investment analyst, on the other hand, usually define working capital as only the excess of current assets over current liabilities, or the **net current assets.** To distinguish these two uses of the term, a distinction may be drawn between working capital, comprising the current assets of the business, and **net working capital,** which is the excess of current assets over current liabilities.

As here used, **current assets** comprise cash, readily marketable securities held as investments, and other items that are considered equivalent to cash, and assets that in the normal course of business will be converted into cash within a year or less, such as accounts receivable and merchandise inventory. **Current liabilities** comprise debts that will, in the ordinary course of business, be liquidated within a year, such as notes and accounts payable.

Earlier economists used the term **circulating capital** in referring to working capital, to emphasize the fact that such assets constantly change in form. John Stuart Mill defined circulating capital as capital "which fulfills the whole of its office in the production in which it is engaged by a single use," to contrast it with fixed capital. Some economic writers have used the term **operating capital** in referring to working capital.

TYPES OF WORKING CAPITAL.—Working capital is often classified as **permanent, regular,** or **normal** on the one hand, and **seasonal** on the other. Permanent working capital constitutes the minimum of current assets required to conduct the business, even during relatively dull seasons. The additional working capital in the form of cash, receivables and inventory required during the more active business seasons of the year constitutes the additional seasonal working capital that the enterprise needs. In most industries, the amount of permanent and seasonal working capital required by a business will also vary greatly in the several stages of the business cycle. During a depression, the need for both will decline, whereas during periods of pros-

perity both permanent and seasonal working capital needs expand sharply. Some writers define added seasonal and cyclical working capital requirements as **variable working capital.**

Every business must be prepared to meet additional working capital needs in an emergency, such as a strike, floods, or fire. These risks can be minimized by insurance in many, but not all, cases. Where such emergencies tend to recur frequently, as in a large, far-flung enterprise, the cash needs arising from them are more properly classified as part of the permanent working capital requirements.

EXCESS WORKING CAPITAL.—A distinction should also be drawn between the true working capital requirements of the business and the **excess working capital** which is retained as a contingency fund to be used for whatever need may arise in the future. Before World War I, it was common for business to rely upon the banks for seasonal and even for part of the regular working capital needs of the business, and very few concerns had a surplus of liquid resources for contingencies. The large earnings of the World War I period and the ease with which money could be raised in the security markets in the prosperous 20's enabled numerous concerns to build up their cash resources to a point where they could not only finance all the prospective working capital needs of the business, but also maintain an excess balance, often invested in marketable securities or other liquid assets, that could be used to finance future expansion, to buy other companies, to cover future operating losses or to meet any other contingency that might arise. As a result of the adoption of the policy of maintaining such a reserve of liquid assets, in stronger, well-financed concerns the conventional ratio of current assets to current liabilities of 2:1 was supplanted by higher ratios since current assets came to include a large contingency fund.

The practice became even more general in World War II. This is reflected in statistics of current assets and liabilities of all American corporations, including numerous smaller concerns that do not maintain excess working capital. Statistics compiled by the Securities and Exchange Commission for 1945 and 1950 follow:

CURRENT ASSETS AND LIABILITIES OF U. S. CORPORATIONS
1945 AND 1950

(In billions of dollars)

	1945	1950
Current assets, total	97.5	150.5
Cash on hand and in banks	22.2	26.9
U. S. government securities	21.2	19.9
Receivables from U. S. government	2.7	
Other notes and accounts receivable	22.3	50.0
Inventories	26.7	51.9
Other current assets	2.4	1.7
Current liabilities, total	44.9	74.7
Advances and prepayments, government	.9	
Other notes and accounts payable	24.9	44.6
Federal income tax liabilities	11.2	15.5
Other current liabilities	7.9	14.6
Net working capital	52.6	75.8

The advantage of maintaining a large contingency fund over and above the working capital requirements of the business has been said to give ". . . on the one hand, the freedom of the management from anxiety in the matter of meeting the company's obligations and, on the other, their freedom to work out constructive policies for the company's welfare, with ample resources for the execution of them" (Sanders and others, Statement of Accounting Principles).

The practice of maintaining a surplus of cash resources for unspecified contingencies has been criticized on the ground that it may lead to wasteful outlays, carelessness about costs, delay in adjusting operations to changing business conditions and the lower average net return on the investment in the enterprise. This critical viewpoint has been expressed as follows (Guthmann and Dougall, Corporate Financial Policy):

> Each dollar of current funds should do as much work as possible and unnecessary dollars might better be distributed to the owners of the corporation or be used to reduce debts to save on interest charges.

Among managements of larger enterprises particularly, however, the trend is towards building up and maintaining a substantial surplus of liquid resources over and above all known working capital needs of the business. Repeated experience during depressions, rapid technological changes, the knowledge that substantial sums may be required for expansion through purchase of assets or mergers, and similar considerations have outweighed the arguments against the maintenance of a very strong working capital position.

CIRCULAR FLOW OF WORKING CAPITAL.—At the organization of a business, cash is provided by the owners. A part of the cash is invested in fixed assets—machinery, plant, furniture, etc.—and the

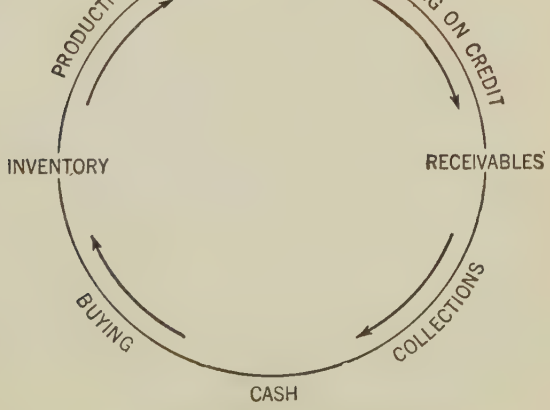


FIG. 1. The Working Capital Cycle

remainder is kept available to meet current requirements. Out of this latter sum, merchandise is purchased in either finished form or in the form of raw materials which are then processed into finished goods. These goods are sold and thus converted again from merchandise into accounts and notes receivable. Upon collection of the receivables, cash flows back into the business. The cycle completed, the cash becomes available to repeat the working capital cycle once again. (See Fig. 1.)

To illustrate, assume $50 in cash is used to acquire raw materials. Another $100 is expended for labor and manufacturing expense. The goods costing $150 are then sold for $200, and after a lapse in time are paid for, so that cash in the amount of $200 flows back to the business. With the completion of the cycle, the sum of cash returned is found to exceed the amount paid out by the amount of the gross profit. The continuity and rate of flow from one phase of the cycle to the other are major factors affecting the earning power of the enterprise. In a profitably run business, every completed cycle yields a return. A constant and rapid circulation of working capital provides the enterprise with a stream of cash, the only asset ordinarily acceptable in liquidating the claims on the business made by its creditors, employees, government, and the owners.

Administration of Current Assets

CASH.—The most liquid portion of the working capital of a business consists of its cash. This comprises both the cash that is actually to be used in the financing of current operations and the additional sums of cash that are held for other known and possible uses.

The bulk of the cash is customarily held on deposit in banks, except for limited sums of money required for petty cash and payrolls, as well as receipts that have not yet been deposited in the bank. Enterprises whose operations cover a wider area may maintain their deposits in a number of banks, both for convenience and to secure the goodwill and guidance of local bankers in each community where they operate. Before 1933, when bank failures were relatively frequent, such a policy involved a risk of loss, but this has been minimized since by federal deposit insurance and other remedial measures that have been adopted. Deposits up to $5,000 in an insured bank are protected by federal insurance.

Corporations operating abroad face a special problem because part of their cash consists of foreign currencies subject to the risk of exchange depreciation and transfer restrictions. These risks usually make it desirable to keep foreign cash balances at a minimum, even where some loss is involved in transfers. On occasion, cash held abroad can be hedged through sales of foreign exchange for future delivery, or funds may be withdrawn through shipments of goods from the country where exchange controls permit.

INVESTMENT OF SURPLUS CASH.—Where cash materially exceeds near-term needs of the business, a large part may be invested in order to secure some return on this liquid portion of the assets of the business. Available investments include:

Time Deposits in Banks.—A low rate of return may be obtained by depositing the portion of the cash not immediately required in a

bank as a time deposit, which is subject to advance notice of 30 days to 6 months before withdrawal, or against a certificate of deposit with a fixed maturity. Banks may pay interest on such deposits, although the payment of interest on demand deposits is barred by law.

Short-Term Treasury Obligations.—The most common investment for corporate funds is short-term government securities, which give the twin advantages of safety and liquidity. Certificates of indebtedness, tax anticipation notes and Treasury notes and bonds maturing within five years are available. Nearness of maturity minimizes risk of price depreciation, should these investments be sold before they mature.

Long-Term Treasury Obligations.—These involve more risk of price fluctuation due to changes in the level of interest rates. Hence, their purchase can be justified only to a limited extent with funds that are unlikely to be required in the business for an indefinite period.

Corporate Securities.—Every enterprise incurs numerous risks in the conduct of its own business. The cash retained as a contingency fund should be regarded as an "iron reserve" that should be readily available for any event that may arise. There is no justification, therefore, for a business corporation to invest surplus cash in corporate securities, particularly those of a speculative character. Several corporations made a practice of investing surplus cash in corporate securities for income and profit in the past, but heavy losses were incurred in such instances during the 30's. Needless to say, these remarks do not apply to investment in securities of subsidiaries, to the purchase of a corporation's own securities for actual retirement or resale to employees, or to investments in corporate securities by investment trusts. Also, they do not apply to the investment of pension, insurance, and other reserves that are not in fact part of the cash resources of the business.

Loans to Officers or Employees.—Such advances may be justified on a small scale in individual instances. They cannot be regarded as a proper investment for surplus cash, however. Rather, they should be considered a part of personnel costs, and repayment should be sought as soon as practicable.

Bankers' Acceptances, Commercial Paper, and Loans to Brokers.—Important at various times in the past, these are no longer of significance. The supply of bankers' acceptances and open market commercial paper is insufficient, while the Banking Act of 1933 bars the earlier practice of lending through banks on call to brokers.

TAX CONSIDERATIONS.—Section 102 of the Revenue Act imposes a punitive surtax upon corporations that retain earnings to an "unreasonable extent" for the purpose of avoiding the surtax on dividends received by their shareholders. Where excess working capital has been accumulated from earnings, and particularly where the excess has been invested in securities, the corporation should be prepared to state specific business reasons to justify the retention of the earnings rather than their distribution as dividends. If the funds have been accumulated for future expansion, definite plans for such expansion should be available to the Bureau of Internal Revenue. Vague or indefinite plans, or unsupported opinions to the effect that the corporation will eventually need the money, may not be sufficient to avoid the imposition of surtax by the Bureau of Internal Revenue.

In Illinois, a tax is imposed on cash balances as of June 30. It is cus-

tomary to invest cash temporarily in Treasury bills in that state, to avoid this tax.

RECEIVABLES.—The volume of credit extended by a business to its customers is measured by its receivables—accounts and notes receivable. The volume of receivables is determined by sales and credit policies, as well as by the effectiveness of collections of outstanding accounts. Since this function involves the final stage in the working capital cycle—the conversion into cash of receivables previously created by sales of merchandise on credit—it is of prime importance. Even where purchasing, production, and sales are efficiently conducted, careless credit and collection policies will result not only in losses due to bad debts, but also in the freezing of a large amount of current assets into slow or doubtful receivables.

The total volume of credit extended to customers must thus be under constant surveillance as one aspect of working capital management. Where necessary, selling policies should be adjusted to keep receivables within the desired bounds. This requires, in turn, **customer credit limits,** sometimes referred to as **maximum ledger balances,** for each account. Factors usually considered in setting the maximum of credit to be extended to a customer include his financial condition, character, ability, the nature of his business, age of his enterprise, its net worth, sales volume, margin of profit and previous ledger experience with him. The greater the profit margin, the higher the credit limit that can safely be extended. Generally speaking, for the group of customers where the anticipated bad debt loss equals the expected net profit on sales, no credit should be extended and only C.O.D. terms should be granted.

While **terms of sale** are generally governed by established trade practices, they may be modified in particular cases. Also, strictness of enforcement of sales terms varies. Cash discounts are often desirable because they speed up accounts receivable turnover, but they are a very costly means of raising cash and, where not required by custom, their continued use should be critically reconsidered from the viewpoint of relative cost of working capital. Where trade practices demand the allowance of discounts, management should make certain that customers pay within the stipulated time set in the credit terms to secure the discount. The granting of discounts where payment is delayed beyond the specified period results in an even greater cost for the use of cash so obtained.

Management can readily test customer adherence to credit terms. For example, in a concern which carries average receivables of $50,000 and has net annual sales of $600,000, the turnover of receivables is 12 times, so that receivables are converted into cash once every 30 days. If the terms of sale are 2% 10 days, net 30 days, it is apparent that either no customers take advantage of the discount and pay within 10 days, or that many customers pay late, beyond the 30-day period. An examination of the ledger experience will focus attention on slow payers, and limitation of further credit extension to them should reduce accounts receivable and free cash for other uses.

Efficient collection practice, by reducing the amount of receivables, is a vital part of working capital management. Laxity in this regard may tie up an undue amount of cash, as well as increase credit losses.

INVENTORIES.—Measured by dollar value, inventories constitute the major element in the working capital of most businesses. Control of inventories, which for manufacturers comprise raw materials and supplies, goods in process, parts and finished merchandise suitable for sale, is often the most important problem in the administration of working capital.

Objectives of Inventory Control.—Administration of inventory is designed to regulate the size of the investment in goods on hand, the types of goods carried in stock and turnover rates. Effective inventory control should provide adequate stocks of goods of proper quality to meet the requirements of production and sales, while at the same time keeping the required investment to a minimum. Increases or decreases in the inventory investment must be tested against the effect on profits, as well as working capital needs.

Inventory administration also involves procedures for storing and issuing materials and maintenance of inventory records. W. N. Mitchell (Organization and Management of Production) has listed the following functional elements of inventory control:

1. Specification:
   a. Determining what to purchase or produce.
   b. Determining how much of each commodity to purchase or produce.
2. Requisitioning:
   a. Authorizing the purchase of materials and supplies.
   b. Authorizing or requesting the production of goods.
   c. Authorizing the transfer of materials from stores to the processing departments.
   d. Authorizing withdrawals from stores of supplies needed by the various divisions of the organization.
3. Purchasing:
   a. Conducting negotiations with vendors.
   b. Tracing goods in transit and conducting negotiations with agencies.
   c. Receipt, inspections, and acceptance or rejection of inbound shipments.
4. Storekeeping:
   a. Custody of raw materials and supplies.
   b. Custody of finished goods.
5. Record-keeping: accounting for
   a. Raw materials.
   b. Goods in process.
   c. Finished goods.
6. Analysis and verification of inventories:
   a. Taking periodical audits or physical inventories for the purpose of verifying the accuracy of the accounting records.
   b. Examining inventories with a view to discovering inactive or nonproductive investments.

Factors Determining Size of Inventory Investment.—The investment in raw materials inventory by a business depends on the nature of the productive process and, more significantly, on purchasing policies. The minimum inventory is the amount necessary to keep production schedules going. Hand-to-mouth buying policies result in inventories at or near this minimum, while much larger stocks on hand result from forward buying or speculative current purchasing.

The investment in goods-in-process is usually determined chiefly by the length of the productive process. Industries which have a very short production period, such as canneries and paper mills, have a relatively smaller investment in goods-in-process than, say, manufacturers of heavy electrical generating equipment or shipbuilders. But review of production and sales policies may reduce inventories of goods-in-process in particular instances.

Management usually has more control over the investment in finished goods inventories, which are more sensitive to the coordination of production and sales. The nature of the demand for a product affects production planning. Where a strong seasonal demand exists, manufacturers have to produce and store goods in large quantities prior to their sale. Even in industries producing staple products enjoying a steady demand through the year, some anticipation of requirements is essential, necessitating maintenance of finished goods inventories. Also, to keep down overhead costs per unit, the rate of operations may exceed orders on hand, especially where production of small quantities is uneconomical. This factor can build up inventories of finished goods rapidly when sales fall off.

R. A. Foulke (Measures of Financial Health) has suggested a rule of thumb for limiting the size of inventory. "No matter what the correlation between net sales and inventories," he wrote, "inventories should be no larger than the net working capital of business enterprise."

Inventory Control Standards.—The following standards for inventory control have been suggested by J. O. McKinsey (Budgetary Control).

1. There should be at all times sufficient stock on hand to satisfy customers' demands, if such demands are consistent with the capacity of the factory.
2. There should not be larger stocks on hand than can be turned over in a period necessary for the production of a similar quantity, unless such quantities do not constitute an economic run.
3. Goods should be produced in quantities large enough to insure economical production.

Effective inventory control comprises the setting of maximum and minimum limits upon the quantity of goods to be kept on hand, as well as the amount to be ordered at one time and the scheduling of purchases. The following example shows how the inventory of raw material "X" may be controlled.

Average daily requirement	20 units
Maximum requirement for any 30-day period	900 units
Minimum requirement for any 30-day period	200 units
Standard order	1,500 units
Time required to obtain delivery	30 days

Data about requirements can be obtained from the perpetual inventory record for raw material "X." While on the average 20 units of this material are consumed each day, it will be noted that monthly consumption ranges from a low of 200 units to a high of 900 units and does not follow a fixed seasonal pattern.

The standard order, sometimes called the economical order, is the quantity which must be purchased to secure the lowest unit cost. In computing this quantity, such items as cost of purchasing, taxes, storage,

handling, physical deterioration, and insurance should be added to the vendor's price before a determination of the standard order is made.

On the basis of the data presented, the following standards can be laid down for raw material "X."

1. Ordering point—900 units. This ordering point need not be greater than the maximum required during the period the purchase order is outstanding.

2. Minimum inventory—300 units. The inventory will fall to the minimum level the day delivery is made against new orders.

On hand date order is placed	900 units
Less: Units consumed during 30-day waiting period, at average of 20 per day	600 units
Minimum inventory	300 units

The minimum inventory provides the margin of safety in case of delay in delivery. Though involving a permanent investment of working capital it is justified since it assures continuous production in an emergency when deliveries are delayed or consumption increased.

3. Maximum—2,200 units. The maximum inventory on hand at any time would be derived as follows:

On hand date order is placed	900 units
Less: Minimum consumed during 30-day period	200 units
Maximum on hand when new order is delivered	700 units
Add: Amount of standard order received	1,500 units
Maximum inventory	2,200 units

These standards provide essential guides to those responsible for purchasing. They permit the delegation of authority to purchase goods, while providing control over funds tied up in inventory. Needless to say, these standards require constant review and modification in the light of changing conditions.

Inventory Valuation.—High inventory valuations result in an overstatement of earnings, a false sense of adequacy of working capital, possible excessive dividend and bonus distributions, and excessive tax payments. On the other hand, understatement of inventory values minimizes financial strength and could lead to eventual heavy tax burdens if the inventory is disposed of and added profits are realized in a period of high tax rates. Avoidance of these extremes is facilitated by adopting a basis of valuation which minimizes the effect of commodity price changes.

The chief methods of inventory valuation currently in use are:

1. Specific cost.
2. First-in first-out.
3. Average cost.
4. Last-in first-out.
5. Cost or market, whichever is lower.
6. Inventory valuation reserves.

The first four methods are variations of actual cost. Specific costs are employed where physical units can be differentiated and the actual price paid for each unit is known. The first-in first-out method uses the most recent price paid for the goods as a basis for valuation, so that it gives

inflated inventory values in periods of rising prices and understated values in periods of falling prices. The average cost, involving use of simple, weighted, or periodic averages, is merely an attempt at pricing inventory at the average of prices paid over a period of time. The last-in first-out method results in a matching of the cost of current purchases against current sales, so that the valuation basis for inventory does not ordinarily change despite fluctuations in prices.

Cost or market, whichever is lower, is a combination of both actual cost and replacement cost. Under conditions of declining prices, the inventory value will be reduced to market price, so that working capital will decline to reflect anticipation of future losses. When prices are rising, the inventory will be valued at cost, which will give smaller working capital and profits than would replacement cost. The tendency toward conservative inventory valuation is reflected in a survey of methods used by 100 of the largest American manufacturing corporations (National City Bank Monthly Letter, May, 1947), which showed that 36 corporations used last-in first-out, while the other 64 companies used variations of cost or market, whichever is lower.

The use of inventory revaluation reserves anticipates future price declines, style or technological changes or other factors that could reduce the value of stocks on hand. They provide protection against overstatement of working capital through the use of inventory valuations that may not stand up in the light of expected developments. Such valuation reserves do not ordinarily lessen income taxes payable, as they are not recognized by the Bureau of Internal Revenue as reducing taxable income.

In the selection of a method, consideration should be given to the physical nature of the inventory, the frequency and magnitude of price fluctuations, the rate of inventory turnover, and the average size of the inventory.

Working Capital Requirements

FACTORS AFFECTING WORKING CAPITAL NEEDS.—A number of factors affect the working capital requirements of each business. An appraisal of these provides guidance to management in estimating prospective needs. Some students of working capital management have listed the following factors as pertinent:

1. General nature of business.
2. Length of period of manufacture and cost of product.
3. Turnover of inventories.
4. Turnover of accounts receivable.
5. Terms of purchase.
6. Terms of sale.
7. Expansion of business.
8. Seasonal variations.
9. Hazards and contingencies inherent in the particular type of business.

To this list should be added the effects of cyclical changes in business, long-term trends in the industry, and the size of the surplus of liquid resources desired by the management as protection against contingencies of all kinds.

GENERAL NATURE OF BUSINESS.—A public utility enterprise requires a relatively small inventory of supplies. Payment for its service is received in cash promptly after it is furnished, and sometimes even before. Hence, its working capital requirements are quite limited by comparison with the heavy fixed capital investment that is needed.

At the other extreme is a retail business conducted on leased premises. Its current assets constitute virtually all of the assets of such a business. Generally speaking, trading and financial enterprises require relatively large amounts of working capital, public utilities comparatively small amounts, while manufacturing concerns stand between these two extremes, their needs depending upon the character of the industry of which they are a part.

PERIOD OF MANUFACTURE AND COST OF PRODUCT.—The longer it takes to make a product and the greater its cost, the larger the inventory tied up in its manufacture. A company engaged in turning out a product which involves an aging process, such as a distillery, must make a particularly heavy investment in inventory. On the other hand, one engaged in bread baking or meat packing sells the bulk of its output daily and therefore, while the investment in working capital is quite large, it is turned over far more rapidly. Some concerns making heavy machinery and equipment minimize their investment in inventory by requiring advance payments from customers as work proceeds on their orders.

TURNOVER OF INVENTORIES.—The ratio of annual sales to working capital or any component thereof (turnover ratios) measures the number of times current assets are converted back into cash during a year. The higher the rate of turnover, the larger is the volume of business which can be conducted with a given amount of such current assets. For inventories also, the higher the rate of turnover the less the risk of loss due to changes in demand, style changes, and price declines. While variations in the ratio of inventory turnover are inevitable as between different industries, frequently encountered differences in turnover rates between companies engaged in the same industry reflect differing sales policies, efficiency, and inventory control methods.

TURNOVER OF ACCOUNTS RECEIVABLE.—The rate at which accounts receivable are converted into cash is primarily a reflection of sales and credit policies. The sale may be but the first step in converting merchandise into cash. Prompt collection of accounts receivable is essential to complete the cycle. Slow collection of receivables can wipe out the benefit derived from a rapid inventory turnover, since it ties up funds that could otherwise be used to acquire goods for further sales.

TERMS OF PURCHASE.—The more favorable the terms on which the business does its own purchasing, the less cash is tied up in merchandise. If only a short period of time elapses between delivery and payment dates, accounts payable are smaller and more cash is required to finance a given volume of business. By effective planning, purchases may be self-financed. This may be seen if one takes, as an illustration, a business where 8 days are required for delivery of materials ordered and the terms of purchase are 2% 10 days, 30 days net. A minimum

inventory of only 8 days' supply is then needed to assure continuous operation. If raw material deliveries are spaced 10 days apart, the company could take advantage of the cash discount and still have adequate inventories for operations, provided no interruption of delivery is likely to occur. In effect, the vendor of the raw material finances a 10 days' supply for the manufacture at all times in this case.

TERMS OF SALE.—The more liberal the credit terms offered customers, the larger the funds that will be tied up in accounts receivable. Discretion of management in setting credit terms is affected by prevailing trade practices as well as by changing economic conditions. During depression periods, credit terms are often relaxed to stimulate sales, while in a sellers' market credit terms may be shortened and payment on time strictly enforced because buyers are so eager to get goods.

R. A. Foulke (Practical Financial Statement Analysis) has observed that "every industry has its own customs and in practically every industry the recognized terms of sale are constantly being modified by particular concerns so that a process of evolution is always going on."

EXPANSION OF BUSINESS.—Growth industries require more working capital than those which are static, other things being equal. As a business expands, working capital requirements increase, although not necessarily in proportion. More efficient utilization of working capital is often possible as a business expands to its "optimum size," but efficiency of working capital use decreases when it goes beyond that point.

SEASONAL VARIATION.—The wider the seasonal variation in an industry, the more additional working capital is temporarily required in the active season. Thus, almost all of the current assets of a manufacturer of ladies apparel may be temporary in nature. As the manufacturer prepares for his active season, his inventory may rise from practically nothing to a peak reached just as volume deliveries begin. As goods are shipped, accounts receivable replace inventory as the significant element of working capital. Final conversion from accounts receivable to cash, as customers pay their bills, ushers in the low point in working capital requirements.

A business frequently finds itself with excess working capital at its seasonal low point. Diversification of products or activities often makes possible a more effective use of working capital throughout the year, reducing fluctuations in its amount from one season to another.

INHERENT HAZARDS AND CONTINGENCIES.—An enterprise operating in an industry subject to wide fluctuations in demand and prices for its products, periodic operating losses, or rapidly changing technology, requires additional working capital to cope with these conditions, over and above its permanent and seasonal requirements.

CYCLICAL AND SECULAR CHANGES.—External factors affecting the working capital needs of all businesses include the cyclical ebb and flow of activity and long-run trends in each industry. While cyclical and secular economic changes cannot be predicted with precision, effective management of working capital requires that allowance be made for these fluctuations so that the business will be reasonably well prepared for them.

A contraction in the volume of business done by an enterprise, whether for seasonal, cyclical, or secular reasons, tends to expand its cash. This results from the reduction in inventory and receivables that usually accompanies a decline in sales and curtailment or cessation of spending upon the acquisition of fixed assets. When new fixed assets are not being acquired, as is common in depressions, the depreciation allowance contributes to the growth of cash, unless the operating profit does not suffice to cover at least part of the depreciation charge. Except where substantial operating losses are incurred, a business may give a misleading appearance of financial strength in a period of reduced activity. As business improves, the cash will dwindle and a shortage of working capital may develop.

Conversely, in prosperity working capital requirements expand rapidly and cash resources are used up at great speed. Not only do inventory and receivables expand rapidly under such conditions, but investment in new fixed assets tends largely to exceed the current depreciation deduction.

Commodity price changes that may accompany fluctuations in the business cycle exaggerate the effects on working capital. Expanding volume usually is accompanied by rising prices, and decreasing volume by price declines.

HOW LARGE A SURPLUS OF WORKING CAPITAL?—No rule can be laid down for the size of surplus working capital resources, for possible needs for liquid resources are well-nigh infinite. Provided stockholders do not object and penalties are not incurred under section 102 of the Revenue Act, surplus cash resources retained in the business may constitute quite a large part of the total investment. Where surplus working capital has reached excessive proportions, the management may utilize cash to retire its own stock by purchase in the open market or through inviting tenders from holders, as Pullman, Inc. did in 1947. A partial liquidation can be effected by using excess working capital to reduce capitalization.

Sources of Working Capital

RAISING PERMANENT WORKING CAPITAL.—The portion of the working capital of the business that will be required even in less active periods should not be raised on a temporary basis. Obviously, if the money for this purpose is borrowed at short term so that repayment becomes necessary within a brief period, embarrassment could result.

The logical source of permanent working capital is the proprietors of the business. In the case of a corporation, this means the sale of preferred or common stock, or the reinvestment of earnings through the surplus account. In either event, funds so acquired can be retained in the business permanently, so that no problem of repayment arises while the funds are still required in the enterprise. The larger the proportion of permanent working capital obtained through the sale of stock or the reinvestment of earnings, the stronger the credit of the enterprise, and hence the more easily will other working capital needs be obtained through borrowing or otherwise.

Next to the sale of stock and the reinvestment of earnings, bond financing provides permanent working capital for the longest period of time. However, since a bond issue has a fixed maturity, provision should be made for ultimate repayment, since this should not be done with current assets that will be required in the business at that time. The soundest procedure is to provide a sinking fund for retirement of bonds issued for permanent working capital. In effect, the bond issue then merely anticipates the retention of earnings to provide the permanent working capital of the business.

Similar in character to a bond issue as a source of permanent working capital is a term loan from a bank or insurance company. Such a loan is generally of shorter maturity than a bond issue, but gradual repayment is always provided for through regular annual or semiannual payments on account of principal.

SHORT-TERM BORROWING.—Less desirable than the sources of permanent working capital listed above are short-term borrowing expedients. Smaller concerns and larger enterprises with limited capital and poorer credit are compelled to use shorter-term bank loans, factoring, and other expedients more suitable for raising seasonal and other variable working capital. However, profitable concerns with insufficient capital have often secured their permanent working capital by short-term borrowings that are renewed repeatedly as they fall due. Bank loans in particular have been used in this way, more in the past than in the last two decades or so.

FINANCING THE SMALL BUSINESS.—A small business is often at a handicap compared with the large concern in raising permanent working capital. This has been particularly true since the early 30's. Previous to that time, commercial banks were generally willing to provide permanent working capital by means of loans that were renewed regularly as they fell due. The bank failures of the early 30's fostered conservative lending policies that greatly curtailed this source of permanent working capital. Efforts to provide funds for this purpose through loans to business by the Federal Reserve banks, the Reconstruction Finance Corporation, and other specialized agencies produced but limited results.

High taxes have limited the ability of smaller enterprises to raise permanent working capital through reinvestment of earnings. The Small Business Committee of the Investment Bankers Association of America (Capital for Small Business) has described the problem as follows:

> During the past decade, conditions have arisen which make it extremely doubtful that the usual sources of capital for small business can be relied upon to meet their need. Foremost among the reasons for this change has been the steadily increasing impact of federal taxation. This growing weight of taxes on business enterprises has made it more and more difficult for small business to expand from retained earnings.

RAISING VARIABLE WORKING CAPITAL.—Working capital that will be required for limited periods of time may be secured from temporary sources. Many businesses have found, however, that they prefer to raise seasonal and cyclical working capital also from the more permanent sources such as reinvested earnings or the sale of stock or bonds. In this way, they avoid incurring short-term liabilities that may

prove embarrassing, should working capital needs be larger or longer-lasting than anticipated.

A part of the variable working capital requirements can be obtained from trade creditors, covering the period between the receipt of goods purchased and the date of payment. The longer this period, the less necessary it becomes to seek financing elsewhere to finance inventory and even receivables, where the terms of payment will cover part of the period after the goods have been purchased but before payment is received from the ultimate purchaser.

Working capital requirements may be reduced by offering favorable credit terms to customers. Through allowing a cash discount for prompt payment, the volume of outstanding accounts receivable can be reduced sharply. However, a cash discount is a very costly way to finance, terms of 2% 10 days, 30 days net being equivalent to borrowing money at the rate of approximately 36% per annum, since in effect 2% is paid for the use of funds for a period of only 20 days. Nevertheless, cash discounts are allowed in many trades, both as a matter of custom and because prompt payment of accounts tends to reduce credit risks as well. Efficient credit and collection practice accomplishes the same result.

BANK LOANS.—The most widely used source of temporary working capital is the bank loan, particularly the unsecured commercial or industry loan made by the bank to finance short-term working capital needs. Such loans may run from 30 days to several months, with renewals not uncommon.

Where the credit of the borrower is not rated highly enough by the bank to grant a loan requested, where large sums are required, or when the bank has doubts about the purpose of the loan or the conduct of the borrower's business, security may be sought. This security may consist of goods, accounts and notes receivable, or government obligations or other marketable securities.

Exacting credit standards applied by commercial banks, and pressure by many banks in the past for repayment of loans as unfavorable business conditions developed, caused business managements generally to seek other sources of working capital following the World War I period. Many concerns used large earnings and the proceeds of the sale of securities in the favorable markets of the 20's to become independent of bank borrowing at that time. Others turned to specialized lenders or government lending agencies. However, bank lending policies were modified as excess reserves and low interest rates in the late 30's caused banks to seek aggressively to expand their commercial loans. In many cases, commercial banks adopted the lending methods that had been developed by specialized lenders. By 1947, banks reported that commercial loans were larger than they ever had been before. However, the banks found themselves in active competition with specialized agencies lending on accounts receivable and inventory to provide variable working capital needs of business.

ACCOUNTS RECEIVABLE FINANCING.—Accounts receivable may be financed either through the outright sale of such accounts by the business, or through borrowing with the accounts assigned as security. The outright sale of accounts, known as **factoring,** has long been used in the textile industry. Factors have extended their operations to

some other fields. Factors usually purchase accounts receivable without recourse and it is common to notify the customer that his account has been sold. Where factoring is conducted on a continuing basis, the seller's invoice may note that the sum due is payable directly to the factor.

Instalment paper is commonly sold on the same basis to a sales finance company by the dealer selling goods on the instalment plan. It is more common for the sales finance company to obtain recourse against the dealer, although part of the charge may be set aside as a dealer's reserve out of which the dealer is expected to reimburse himself for losses due to nonpayment of instalment notes.

Loans against a pledge of accounts receivable are commonly made on a nonnotification basis, and this arrangement is therefore called **non-notification financing.** Numerous specialized finance companies, and more recently commercial banks, have made this type of financing of accounts receivable available. The amount of the advance usually ranges from 70–90% of the face value of accounts receivable, depending upon their quality. The interest charge may run from 6–20%, depending upon the financial strength of the borrower and his customers. Since customers are not notified of the pledge of the account, this is preferable from the viewpoint of a business which is fearful of antagonizing customers by informing them that their accounts have been pledged.

Financing working capital requirements through the sale or pledge of accounts receivable offers the following advantages:

1. The credit of the business may not be strong enough to permit financing in any other way.
2. Where accounts receivable constitute a large part of the assets of a business, as in the case of companies selling on the instalment plan or those that find they must give relatively long credit terms for competitive reasons, the pledge of accounts receivable is the logical method of financing.
3. Interest is paid only upon funds actually received and used in the business, rather than upon borrowed money that is not required immediately, or that may not be used during the period of a loan because of miscalculation of requirements.

Disadvantages of accounts receivable financing may include:

1. The higher rate of interest payable than on bank loans, where the latter are obtainable.
2. Customers may resent the sale or pledge of their accounts, where they are notified that this has been done.

INVENTORY FINANCING.—Inventories may be pledged for loans in several ways. The bill of lading of a common carrier, a bonded warehouse receipt, or a trust receipt specifying that the goods involved belong to the lender may be used. As a practical matter, it is often essential that goods shall be on the premises of the borrower. Because of the legal weakness of the trust receipt, **field warehousing** has been developed to protect the lender in such cases. A field warehouse, consisting of a segregated space on the premises of the borrower placed under the control of an outside warehouseman, is designed to give the lender security comparable to that provided by an independent warehouse. The cost of field warehousing ranges from ½ of 1% to 2% of the value of the goods per annum, and interest charged by banks and

finance companies for loans secured by field warehouse receipts range from 4–10%. The amount loaned may run from 65–85% of the value of the goods pledged. The amount of the interest charged and the percentage of inventory value loaned reflects the financial responsibility of the field warehouse company, the physical characteristics of the field warehouse, the financial position of the borrower, and the character of the merchandise. The borrower who cannot obtain funds through an ordinary bank loan in the required amount finds a field warehouse arrangement helpful because of the resulting ability to take advantage of cash and quantity discounts, which are often several times as large as the cost of funds obtained in this way.

Loans on the pledge of commodities were at one time largely limited to staple raw materials traded in on commodity futures exchanges. In recent years, this technique has been extended to lending on a wide variety of semimanufactured and finished goods located on the premises of the borrower.

DEPRECIATION AS A SOURCE OF WORKING CAPITAL.—When depreciation deductions from earnings are not balanced by new investment in fixed assets, as is often the case during depression periods when additional plant capacity is not required, an increase in working capital will result where such funds are not used to pay off loans or to distribute dividends to stockholders. Under depression conditions, a flow of cash to the business may come not only from the sale of products and the collection of resulting accounts receivable, but also from depreciation, where gross profit is sufficient to cover the depreciation reserve. This is illustrated in Fig. 2, adapted from A. H. Winokur (Maintenance of Working Capital of Industrial Corporations by Conversion of Fixed Assets), who found that in 9 major industries 11% of the working capital was provided by conversion of fixed assets in 1932.

It is very important to remember, however, that working capital can be obtained only temporarily from the deferral of the acquisition of fixed assets during depression periods. In the ensuing period of prosperity, when additional plant capacity will again be needed, the investment in fixed assets may exceed current depreciation, and inroads will be made into working capital to acquire new fixed assets unless funds are obtained from some other source. Hence, management must prepare for a conversion of working capital into fixed assets within a period of business expansion.

TAX RESERVES.—The deferred payment of taxes can be a source of temporary working capital. Taxes are not paid from day to day, but the accrued liability therefor is indicated by reserves.

Federal, state and local governments require business to perform the task of tax collector. Withheld personal income taxes, old-age benefit taxes, excise taxes, and sales taxes are collected by business and then turned over to government. The period of time during which business holds and may use these funds ranges from a minimum of a month in the case of withheld income and excise taxes to a maximum of 3 months in the case of old-age benefit taxes and some state and local sales taxes. A business acts as a trustee for these funds, and severe penalties are imposed for failure to turn them over to the government at prescribed dates.

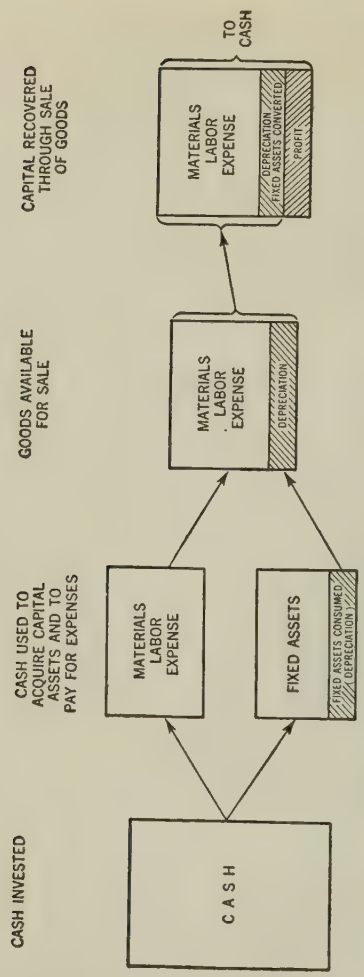


Fig. 2. Flow of Funds Illustrating Conversion of Fixed Assets into Working Capital (A. H. Winokur, Maintenance of Working Capital of Industrial Corporations by Conversion of Fixed Assets, Bur. of Bus. Research, Univ. of Illinois)

Far more important to many concerns are the accruals of federal income taxes that are reserved out of earnings, which are payable in 4 quarterly instalments following the close of the taxpayer's fiscal year. Thus, a corporation which incurs liability for $800,000 of federal income tax in 1954 will actually have to pay this sum to the Collector of Internal Revenue in 1955, remitting half on March 15, and the rest on June 15 of that year. If earnings are fairly uniform through the year, this

corporation, in effect, has the use of the funds required to pay federal income taxes for an average of over 10 months, since taxes due on first half-year earnings would be paid on March 15 the next year, and taxes on second half-year earnings would be paid on June 15.

If earnings remain fairly uniform from year to year, the reserve for taxes could become in effect a source of permanent working capital.

The Working Capital Budget

SCOPE OF BUDGET.—Efficient management of working capital, as of other phases of business financing, entails careful measurement of future requirements and the formulation of plans for meeting them. The working capital budget is an important phase of over-all financial budgeting.

The working capital budget is to be distinguished from a cash budget that is designed to insure all the financial requirements of a business, including funds for the acquisition of fixed assets, repayment of long-term loans, and similar items. A budget limited to working capital is designed to measure permanent and variable working capital requirements and assure that they are provided for as needed.

PREPARATION OF WORKING CAPITAL BUDGET.—An illustration of a practical working capital budget has been provided by Hunt (The Controller, 1935). The first step requires the preparation of an estimate of monthly shipments, cash collections from receivables and monthly balances of receivables. (See Fig. 3a, Table I.) The estimate of shipments is derived from the sales budget, while collections and balances in receivables at the end of each month are estimated according to the number of days' sales expected to be outstanding at the end of each month.

Table II, Fig. 3a, estimated cash receipts, the second part of the working capital budget, includes anticipated collections from receivables, miscellaneous income, and proceeds from bank loans.

The forecast of cash disbursements, Table III, Fig. 3b, is derived from the operating budget. The payroll and expense budgets, the selling expense and advertising budget and the administrative expense budget provide the estimates of operating expenses. Anticipated taxes and dividend payments are determined from the projected profit and loss statement and the dividend policy of the company. The cash required to liquidate accounts and notes payable will depend on projected purchases of goods and the average time taken to pay creditors. In this case it is assumed that each month's purchases are paid for in the subsequent month.

Once the anticipated monthly purchases have been determined from the purchasing budget and the policy with regard to paying creditors set, a monthly balance of accounts payable can be derived, as shown in Table IV of Fig. 3b. The production budget will give expected consumption of raw materials and finished goods produced each month and the sales budget the expected shipments by month, so that estimated inventories on hand at the end of each month can be determined.

I. Estimated { Monthly Shipments / Cash Receipts from Receivables / Monthly Balances of Receivables

	Jan.	Feb.	March	April to Sept.	Oct.	Nov.	Dec.	Total
Accts. Receivable—1st of Mo.	$250,000	190,000	207,000	-------	208,500	224,500	262,000	250,000
Notes Receivable—1st of Mo.	10,000	10,000	11,500	-------	9,000	9,500	6,500	10,000
Tot. Receivables—1st of Mo.	$260,000	200,000	218,500	-------	217,500	234,000	268,500	260,000
Shipments	65,000	85,000	112,500	-------	112,500	150,000	130,000	1,267,500
	$325,000	285,000	331,000	-------	330,000	384,000	398,500	1,787,500
Cash Collections—Accts. Rec.	125,000	65,000	85,000	-------	95,000	112,500	150,000	1,262,500
Cash Collections—Notes Rec.	-------	1,500	2,500	-------	1,000	3,000	-------	16,500
Notes Rec. from Accts. Rec.	-------	3,000	-------	-------	1,500	-------	-------	13,000
Accts. Receivable—End of Mo.	$190,000	207,000	234,500	-------	224,500	262,000	242,000	242,000
Notes Receivable—End of Mo.	$ 10,000	11,500	9,000	-------	9,500	6,500	6,500	6,500

II. Estimated Cash Receipts
For Year Ending December 31, 19—

	Jan.	Feb.	March	April to Sept.	Oct.	Nov.	Dec.	Total
Accounts Receivable	$125,000	65,000	85,000	-------	95,000	112,500	150,000	1,262,500
Notes Receivable	-------	1,500	2,500	-------	1,000	3,000	-------	16,500
Notes Receivable—Discounted	-------	-------	-------	-------	-------	-------	-------	-------
Miscellaneous—Rentals	250	250	250	-------	250	250	250	3,000
Interest	-------	35	60	-------	25	75	-------	425
Income from Investments	500	500	500	-------	500	500	500	6,000
	$125,750	67,285	88,310	-------	96,775	116,325	150,750	1,288,425
Borrowed from Banks	-------	-------	-------	-------	-------	-------	-------	-------
Total Receipts	$125,750	67,285	88,310	-------	96,775	116,325	150,750	1,288,425

FIG. 3a. Example of a Working Capital Budget

III. Estimated Cash Disbursements For Year Ending December 31, 19—

	Jan.	Feb.	March	April to Sept.	Oct.	Nov.	Dec.	Total
Pay Rolls—Plant	$ 13,000	17,000	22,500		22,500	30,000	26,000	253,500
Salaries—Officers and Employees	7,500	7,500	7,500		7,500	7,500	7,500	90,000
Advertising and Selling	5,000	5,000	15,000		5,000	5,000	15,000	100,000
Rent	1,250	1,250	1,250		1,250	1,250	1,250	15,000
Taxes—Income			3,750				3,750	15,000
Insurance		5,000						5,000
Interest			1,125					2,250
Notes Payable								
Accounts Payable	42,500	56,250	67,500		75,000	65,000	32,500	633,750
	$ 69,250	92,000	118,625		111,250	108,750	86,000	1,114,500
Bank—Notes Payable			25,000					75,000
	$ 69,250	92,000	143,625		111,250	108,750	86,000	1,189,500
Dividends Payable								
Total Disbursements	$ 69,250	92,000	143,625		111,250	108,750	86,000	1,189,500

IV. Estimated { Purchases / Monthly Balances—Accounts Payable / Monthly Balances—Inventory—Materials, etc.

	Jan.	Feb.	March	April to Sept.	Oct.	Nov.	Dec.	Total
Accounts Payable—1st of Mo.	$ 42,500	56,250	67,500		75,000	65,000	32,500	42,500
Purchases	56,250	67,500	75,000		65,000	32,500	42,500	633,750
	$ 98,750	123,750	142,500		140,000	97,500	75,000	676,250
Accounts Payable—Paid	42,500	56,250	67,500		75,000	65,000	32,500	633,750
Accounts Payable—End of Mo.	$ 56,250	67,500	75,000		65,000	32,500	42,500	42,500
Inventory—1st of Mo.	$ 75,000	98,750	123,750		131,250	140,000	97,500	75,000
Purchases	56,250	67,500	75,000		65,000	32,500	42,500	633,750
	$131,250	166,250	198,750		196,250	172,500	140,000	708,750
Trans. to Cost of Mfg.	32,500	42,500	56,250		56,250	75,000	65,000	633,750
Inventory—End of Mo.	$ 98,750	123,750	142,500		140,000	97,500	75,000	75,000

FIG. 3b. Example of a Working Capital Budget (continued)

V. Monthly Cash Position
Current Assets—Liabilities—Working Capital

	Jan.	Feb.	March	April to Sept.	Oct.	Nov.	Dec.	Total
Cash on Hand—1st of Mo.	$ 25,000	81,500	56,785	-------	66,075	51,600	59,175	25,000
Receipts—II	125,750	67,285	88,310	-------	96,775	116,325	150,750	1,288,425
	$150,750	148,785	145,095	-------	162,850	167,925	209,925	1,313,425
Disbursements—III	69,250	92,000	143,625	-------	111,250	108,750	86,000	1,189,500
Cash on Hand—End of Mo.	$ 81,500	56,785	1,470	-------	51,600	59,175	123,925	123,925
Current Assets								
Cash	$ 81,500	56,785	1,470	-------	51,600	59,175	123,925	123,925
Accts. Receivable—I	190,000	207,000	234,500	-------	224,500	262,000	242,000	242,000
Notes Receivable—I	10,000	11,500	9,000	-------	9,500	6,500	6,500	6,500
Inventories—IV	98,750	123,750	142,500	-------	140,000	97,500	75,000	75,000
Total Current Assets	$380,250	399,035	387,470	-------	425,600	425,175	447,425	447,425
Current Liabilities								
Notes Payable—Bank	$ 75,000	75,000	50,000	-------	-------	-------	-------	-------
Accounts Payable	56,250	67,500	75,000	-------	65,000	32,500	42,500	42,500
Taxes and Insurance	20,000	15,000	11,250	-------	3,750	3,750	-------	-------
Total Current Liabilities	$151,250	157,500	136,250	-------	68,750	36,250	42,500	42,500
Current Working Capital	$229,000	241,535	251,220	-------	357,850	388,925	404,925	404,925

FIG. 3c. Example of a Working Capital Budget (continued)

The full working capital budget, Table V, Fig. 3c, is a summary table of the previously described estimates. It presents the expected current asset and current liability position at the end of each month.

The working capital budget can be made a useful tool in financial planning. It facilitates anticipation of requirements, giving management ample time to arrange for raising needed funds on the most desirable basis. The working capital budget also provides a check on expansion of inventory and receivables, indicating where it exceeds actual requirements and violates management policies.

The Analysis of Working Capital

STATEMENT OF VARIATION IN WORKING CAPITAL.—The comparison of balance sheets for the beginning and the end of a specific period has long been used as a management tool, to check efficiency of the use of funds. The familiar "Where Get-Where Gone" statement has as its purpose the analysis of how funds have been procured for the business and how they have been employed. The statement of variation in working capital uses this technique to analyze changes in working capital components between two dates. A comparison of current assets and current liabilities, as shown in balance sheets at the beginning and the end of a specific period, show changes in each type of current asset, as well as the sources from which working capital has been obtained.

A simple illustration is provided in Figs. 4 and 5. After increases and decreases have been tabulated, the change in working capital and the sources supplying these funds can be determined.

X Corp.

Comparative Balance Sheets
Dec. 31, 1946 and Dec. 31, 1947

	Dec. 31, 1946	Dec. 31, 1947	Increases in Assets— Decreases in Liabilities and Net Worth	Decreases in Assets— Increases in Liabilities and Net Worth
Assets:				
Cash	$ 10,000	$ 30,000	$20,000	
Accounts Receivable	35,000	50,000	15,000	
Inventories	50,000	80,000	30,000	
Plant and Equipment (net)	30,000	25,000		$ 5,000
Total Assets	$125,000	$185,000		
Liabilities:				
Accounts Payable	$ 15,000	$ 45,000		30,000
Net Worth:				
Capital Stock	100,000	120,000		20,000
Surplus	10,000	20,000		10,000
Total Liabilities and Capital	$125,000	$185,000	$65,000	$65,000

FIG. 4. Illustrative Comparative Balance Sheet

X Corp.

Statement of Variation of Working Capital
Dec. 31, 1946 and Dec. 31, 1947

Increases in Working Capital:	
Cash	$20,000
Accounts Receivable	15,000
Inventories	30,000
TOTAL	65,000
Sources of Working Capital:	
Increases in Payables (from creditors)	30,000
Increase in Capital Stock (from stockholders)	20,000
Increase in Surplus (retained earnings)	10,000
Decrease in Plant and Equipment (from depreciation)	5,000
TOTAL	$65,000

FIG. 5. Statement of Variation of Working Capital

WORKING CAPITAL RATIOS.—The ratio analysis of working capital has been evolved primarily for credit analysis. However, it can also be used by management as a means of checking upon the efficiency with which working capital is being used in the enterprise. The most important ratios for working capital management are the turnover of working capital, inventory turnover and the average collection period for accounts receivable.

Ratio analysis takes two forms. First, the behavior of the ratios for one business over a period of years reveals trends. Secondly, a ratio for one concern can be compared with the average for other concerns in the same line of business. In making such comparisons, allowance must be made for differences in the character of the enterprise and for special policies each pursues deliberately.

Dun & Bradstreet, Inc. compute regularly, for the preceding 10 years, median working capital ratios for different groups of manufacturers, wholesalers and retailers. While compiled primarily for credit analysis purposes, these provide a standard against which a business can check its own ratios. The ratios for the 10 years 1935–44, listed separately for each 5-year period, are shown in Figs. 6, 7, and 8 (pages 734–737).

The ratios used in the tables are:

1. **Current Assets to Current Debt.**—Frequently referred to as the **current ratio,** it measures the relative ability of a company to pay its short-term debts.

2. **Turnover of Net Working Capital.**—Derived by dividing net sales by average net working capital for a period—generally a year—this ratio measures the rate of working capital utilization. A company showing a turnover in excess of industry standards may be in need of additional net working capital, to be supplied by owners through reinvested earnings or the sale of additional stock. A concern with a lower than average ratio may have an excess of investment in net working capital.

3. **Average Collection Period.**—The average collection period is equivalent to the average number of days required to convert receiv-

ables into cash. It is determined by dividing average receivables on the books during a year by average daily sales (net sales ÷ 365). It indicates the extent to which customers are conforming to credit terms, and is thus a reflection of the efficiency of the credit department.

4. **Net Sales to Inventory.**—The number of times in any one period that inventory is turned over is computed by dividing net sales for a period, generally a year, by the average inventory carried during the period. The faster the rate of turnover, the greater the profit realized from the investment in inventory, unless the high rate of turnover is due to excessive markdowns.

5. **Current Debt to Tangible Net Worth.**—The ratio of current liabilities to tangible net worth shows how much of the capital used in an enterprise has been provided by temporary creditors and how much by long-term creditors and owners. The funds permanently invested serve as a cushion for credit temporarily extended to the business. Accordingly, the higher the ratio, the greater the risk to short-term creditors.

6. **Inventory to Net Working Capital.**—Inventory is the least liquid of the elements in working capital. Its ratio to net working capital shows the extent to which the owners of the business have invested in this asset.

7. **Current Debt to Inventory.**—This ratio relates total current liabilities to inventory. By ignoring all other current assets, it measures the equity of the creditors in the inventory and the amount of additional working capital that must be supplied by the owners of the enterprise.

LIQUIDITY RATIO.—For some analysis purposes, management, creditors, and financing agencies are concerned primarily with the ability of a business to meet its short-term obligations even if the inflow of cash should be slowed down by unfavorable developments. One measure of this is the ratio of cash and government securities to current liabilities, which is termed the **liquidity ratio.** This ratio has averaged around 60% to 70% in recent years for all corporations.

A similar ratio, favored by bank credit men, is that of cash, government securities, and accounts receivable to current liabilities. This ratio assumes that the accounts receivable, as carried on the books, are collectibl when due, but there is no similar assurance that inventory can be liquidated on short notice. This ratio has ruled around 1¼ : 1 to 1½ : 1 in recent years for all United States corporations.

(First Figure 1935-1939 Average—Second Figure 1940-1944 Average)

Line of Business	Current Assets to Current Debt	Turnover of Net Working Capital	Average Collection Period	Net Sales to Inventory	Current Debt to Tangible Net Worth	Inventory to Net Working Capital	Current Debt to Inventory
	Times	Times	Days	Times	Per Cent	Per Cent	Per Cent
Automobile Parts and Accessories	3.31	4.80	40	7.1	28.7	72.4	71.6
	2.13	6.35	34	8.5	52.4	71.4	135.0
Breweries	2.09	13.85	20	18.6	23.0	75.5	174.7
	1.84	12.62	19	14.5	29.7	76.2	156.1
Chemicals, Industrial	3.66	4.04	40	5.2	17.6	64.4	63.4
	2.58	4.79	35	6.6	33.5	67.8	85.6
Cigars	3.62	2.16	50	3.8	14.9	74.2	31.2
	3.99	2.32	43	2.3	29.5	83.2	43.5
Clothing, Men's and Boys'	2.53	5.11	65	7.5	60.7	76.9	91.0
	2.63	5.38	44	7.0	56.1	77.8	80.5
Coats and Suits, Women's	3.11	8.58	30	17.3	43.7	44.2	106.6
	2.28	9.06	28	12.9	65.0	70.8	110.4
Confectionery	3.11	6.43	34	11.6	21.3	64.2	79.2
	2.64	7.15	24	11.7	33.0	64.5	101.0
Cotton Goods, Converters	2.44	5.67	59	7.2	61.3	85.2	76.8
	2.57	5.56	43	8.0	53.8	76.1	89.0
Dresses, Silk, Rayon, and Acetate	2.58	8.87	39	20.7	56.9	41.6	134.6
	2.10	8.64	31	14.1	74.2	58.3	128.4
Drugs	3.81	3.67	44	6.4	22.6	58.0	64.2
	3.37	3.47	42	5.6	32.8	69.3	69.4
Electrical Parts and Supplies	3.53	3.49	47	4.9	25.5	74.4	61.1
	2.21	5.02	36	5.6	53.3	80.9	111.5
Foundries	3.58	6.07	42	10.3	15.9	58.9	78.7
	1.99	8.86	34	12.8	46.4	66.8	157.3
Fruits and Vegetables, Canners	2.13	8.02	23	3.8	57.7	124.7	75.6
	1.78	12.08	23	6.1	52.5	107.8	94.0
Fur Garments	3.05	4.46	51	8.5	38.9	56.3	70.2
	2.69	3.60	50	6.0	46.9	67.6	91.7
Furniture	2.81	4.35	56	5.5	33.6	78.0	73.2
	3.05	4.78	39	6.7	32.2	64.3	76.1
Hardware and Tools	3.51	4.40	40	5.0	18.6	78.1	51.6
	2.08	7.31	39	8.5	55.7	75.3	132.7

(First Figure 1935-1939 Average—Second Figure 1940-1944 Average)

Line of Business	Current Assets to Current Debt	Turnover of Net Working Capital	Average Collection Period	Net Sales to Inventory	Current Debt to Tangible Net Worth	Inventory to Net Working Capital	Current Debt to Inventory
	Times	Times	Days	Times	Per Cent	Per Cent	Per Cent
Hosiery	2.70 2.71	6.70 6.21	32 29	8.0 8.5	28.7 29.9	85.4 67.2	83.0 93.4
Leather Garments	3.32 2.70	5.10 5.26	44 32	8.7 9.9	31.7 50.9	66.5 79.7	61.1 86.2
Luggage, Leather	2.97 3.27	5.19 6.20	62 41	7.1 12.6	37.7 38.1	69.2 59.7	70.4 83.5
Machinery, Industrial	3.74 2.14	3.08 5.44	54 44	4.9 6.8	18.7 51.1	64.8 74.3	56.1 124.2
Meat and Provisions, Packers	3.03 2.08	11.08 15.50	17 14	17.5 22.2	25.2 37.6	69.1 81.1	82.3 107.1
Metal Stampings	3.25 2.15	5.78 7.51	42 35	7.4 11.1	23.1 44.3	65.0 62.3	72.8 140.9
Overalls and Work Clothing	3.21 2.87	4.13 4.89	45 36	4.9 7.2	30.8 41.1	81.7 83.4	54.9 71.8
Paints, Varnishes and Lacquers	3.52 3.22	4.36 4.81	57 41	7.0 6.5	18.6 26.2	63.2 68.4	60.9 63.8
Paper	2.94 2.73	5.50 4.96	38 33	5.5 6.0	19.9 20.8	81.5 68.6	64.6 76.8
Paper Boxes	3.37 2.78	5.37 6.14	45 30	7.7 10.6	18.5 27.1	67.6 63.3	68.7 99.2
Petroleum, Integrated Operators	3.01 2.51	3.77 3.91	29 35	5.2 7.0	17.2 21.8	74.1 63.3	66.7 105.8
Shirts, Underwear, and Pajamas, Men's	2.50 2.46	5.73 5.78	56 41	7.3 7.8	55.0 55.0	78.3 83.7	87.9 85.0
Shoes, Women's and Children's	2.72 2.22	7.67 6.02	39 34	9.1 8.1	47.1 59.4	71.3 88.5	83.8 92.6
Steel, Structural Fabricators (Sell on Short Terms)	3.40 2.35	3.90 5.25	49 41	6.0 8.7	19.4 40.8	69.1 61.7	61.4 108.3
Underwear, Women's Silk, Rayon, and Acetate†	2.46 2.68	8.03 7.37	42 32	11.0 13.2	56.2 47.8	73.1 65.8	85.6 87.7

† Exclusively rayon and acetate since 1942.

FIG. 6. Working Capital Ratios of Manufacturers, 1935–1944—Dun & Bradstreet

(First Figure 1935-1939 Average—Second Figure 1940-1944 Average)

Line of Business	Current Assets to Current Debt	Turnover of Net Working Capital	Average Collection Period	Net Sales to Inventory	Current Debt to Tangible Net Worth	Inventory to Net Working Capital	Current Debt to Inventory
	Times	Times	Days	Times	Per Cent	Per Cent	Per Cent
Automobile Parts and Accessories	3.15	4.36	46	4.8	39.2	87.8	61.2
	7.95	4.95	34	6.2	38.8	79.3	67.7
Butter, Eggs and Cheese	2.62	13.93	23	25.5	44.3	47.3	112.1
	2.15	14.44	20	21.0	55.1	71.7	104.0
Drugs and Drug Sundries	3.20	4.45	46	5.8	40.5	77.4	66.6
	2.86	5.33	32	6.8	47.7	79.4	63.2
Dry Goods	2.79	4.61	63	6.7	47.1	69.4	79.6
	3.46	4.92	42	8.6	36.7	58.7	71.2
Electrical Parts and Supplies	2.55	5.43	54	7.7	61.2	74.5	92.0
	2.99	4.81	38	7.2	47.1	67.4	85.6
Fruits and Produce, Fresh	2.24	15.89	21	23.0	46.7	46.6	137.7
	2.12	16.23	20	24.7	59.0	52.8	145.0
Groceries	2.87	7.75	30	8.0	44.8	94.0	59.4
	3.14	7.66	26	8.7	37.6	88.1	53.2
Hardware	3.38	3.19	52	3.6	32.0	83.3	51.7
	3.67	3.52	36	4.9	31.0	73.0	65.7
Hosiery	3.16	5.16	53	7.3	40.2	64.0	68.2
	5.23	4.54	38	8.9	28.6	52.2	48.3
Lumber	3.15	4.54	61	5.0	28.9	72.5	69.7
	3.68	6.76	42	6.7	30.9	57.3	70.8
Paper	2.87	5.94	56	6.8	45.8	72.7	84.4
	2.72	6.08	40	8.1	46.1	67.7	86.6
Plumbing and Heating Supplies	2.74	5.33	54	5.6	46.5	85.6	75.1
	3.51	4.19	40	5.9	33.6	69.5	64.3
Wines and Liquors	*	*	*	*	*	*	*
	1.82	9.04	32	8.3	95.2	104.0	105.8
Womenswear, Coats, Suits, and Dresses	2.69	8.34	51	17.7	56.1	35.7	126.2
	2.51	7.55	41	18.8	53.4	37.8	154.0
Woolen and Worsted Piece Goods	2.05	5.52	60	5.8	96.9	89.0	112.1
	2.61	7.03	41	8.9	77.3	76.3	93.5

* Figures for 1935-1939 not given.

FIG. 7. Working Capital Ratios of Wholesalers, 1935–1944—Dun & Bradstreet

(First Figure 1935-1939 Average—Second Figure 1940-1944 Average)

Line of Business	Current Assets to Current Debt	Turnover of Net Working Capital	Average Collection Period	Net Sales to Inventory	Current Debt to Tangible Net Worth	Inventory to Net Working Capital	Current Debt to Inventory
	Times	Times	Days	Times	Per Cent	Per Cent	Per Cent
Clothing, Installment	3.82	2.10	168	8.0	29.0	26.4	107.5
	4.16	2.43	131	5.9	29.0	38.0	90.1
Clothing, Men's and Boys'	2.78	3.98	*	3.6	39.7	99.7	56.4
	3.06	3.62	*	4.1	35.6	86.5	54.3
Department Stores	3.36	4.44	*	5.9	29.1	75.8	62.4
	2.82	4.58	*	6.7	35.4	69.9	80.7
Furniture, Installment	3.54	1.84	228	5.4	35.5	31.8	113.2
	4.88	1.82	137	5.3	24.1	34.0	77.6
Lumber	3.25	3.10	84	4.2	25.7	66.7	70.7
	4.32	3.05	46	5.2	19.1	57.7	50.4
Shoes, Men's and Women's	3.14	5.00	*	3.6	32.7	113.7	37.5
	3.15	5.41	*	4.9	37.8	102.2	42.0
Women's Specialty Shops	2.78	6.77	*	9.4	41.8	72.0	101.0
	2.43	5.98	*	8.6	50.7	71.5	98.1

* Part of the annual sales were for cash and part were on charge account. To obtain an average collection period it would have been necessary to deduct the amount of the cash sales from the annual net sales and then to have determined the average number of days for which the accounts and notes receivable were outstanding based upon the resultant yearly charge sales. This information was available in too few cases to obtain an average collection period which could be used as a broad guide.

FIG. 8. Working Capital Ratios of Retailers, 1935–1944—Dun & Bradstreet

SECTION 18

FIXED CAPITAL

CONTENTS

PAGE

Nature of Fixed Capital

Definition of fixed capital assets 741
Nature of capital assets 741
Economic nature of fixed capital 741
Components of fixed capital 742
Valuation of fixed tangible assets ... 742
Importance of planning and controlling capital expenditures 743
Fixed assets in relation to total assets 743
Comparison of investment in fixed assets to total assets for 10 industrial companies (*f.* 1) 744
Recovery of fixed capital assets..... 744
Purchase of equipment 744
Initial cost of capital assets and future operating costs 745
A balanced capital investment 746
New equipment purchases and obsolescence of old 747
Handling surplus capital assets 748
Insurance on fixed capital assets 748

Planning of Capital Expenditures

Advantages of long-range planning.. 749
Long-range forecasts 749
Planning capital expenditures for anticipated growth 750
Timing of capital expenditures 751
Estimates of capital asset replacements 751

Fixed Capital Turnover

Definition and calculation of the fixed asset turnover 751
Effect of increase or decrease in rate of turnover 752
Compensating factors offsetting decrease in rate of turnover 753

The Capital Budget

Contents of capital budget 753
Preparation of capital budget 753
Capital expenditures budget (*f.* 2) 754
The appropriation request 755
Appropriation request for capital expenditure (*f.* 3) 756

PAGE

The appropriation request—*Continued*
Divisional appropriation request (*f.* 4) 757
Projects included in capital budget .. 756
The appropriations committee 758
Approval of capital expenditures without a capital budget 759
Disadvantages of control without a capital budget 759
Capital expenditure control 760
Blanket appropriations 761
Review of capital budget 761
Reports of capital expenditures 762
Capital budget and cash planning .. 762
Capital expenditures and financial planning 763
Summary and forecast of investment expenditures (*f.* 5) 764

Depreciation

Objectives of depreciation provision.. 765
Depreciation as an allocation of the cost of capital assets 765
Depreciation and capital asset valuation 765
Depreciation and replacement of capital assets 765
Capital asset replacement funds .. 766
Obsolescence of capital assets 767
Maintenance vs. depreciation 767
Relation to maintenance and repairs 767
Effect of depreciation on working capital 767
Effect of inadequate depreciation 768
Depreciation a cost of operation 768
Impact of changing price levels upon depreciation 769
Fully amortized emergency facilities..769
Methods of calculating depreciation 770
Straight line method 770
Interest method 771
Depreciation based on production.. 771
Reducing balance method 771
Depreciation based on sales or profits 772
Writing off assets on acquisition... 772
Financial effects of depreciation policies 772
Appreciation and depreciation 773
Depreciation regulation 773

PAGE

Depletion of Wasting Assets

The depletion problem 774
Financial significance of depletion... 774
Valuation of wasting assets 775
Methods of calculating depletion 776
Percentage depletion 776
Depletion and financial reporting .. 777

SECTION 18

FIXED CAPITAL

Nature of Fixed Capital

DEFINITION OF FIXED CAPITAL ASSETS.—Fixed capital assets consist of relatively permanent assets acquired for use in the conduct of the business, and not intended for disposal in the ordinary course of events. McKinsey and Meech (Controlling the Finances of a Business) define fixed capital assets as:

> Property which is not "turned over," i.e., not turned into cash at a profit (or loss) except within a relatively long period. This property is represented by the fixed assets or fixed capital.

Dewing (Financial Policy of Corporations) states:

> The producer's goods owned by a corporation are its permanent capital —fixed assets as the accountant would say. They are the tools of the business: land, buildings, machines, showroom fixtures, delivery vehicles. These properties are in constant use, and they become obsolete because of the improvements in science and the arts. But they are never bought and sold as a regular procedure, nor changed into things useful for ends beyond the business itself.

NATURE OF CAPITAL ASSETS.—The capital of a business can be classified as (1) fixed capital, and (2) working capital. The character and use of an asset are important in determining its proper classification. A manufacturer of washing machines will properly regard a washing machine as part of his inventory of finished goods which he hopes to dispose of shortly, whereas a laundry carries a washing machine as fixed capital which produces recurring income. Current assets are liquid, and can and normally will be disposed of in the ordinary course of business, whereas fixed capital, such as buildings and furniture, is not readily convertible into cash. Current assets usually have a short life, but fixed capital is usually of considerable permanency. Tangible current capital, such as inventories, enter into the productive process to emerge in an entirely new form consisting of the finished products of the company. The entire cost of the raw material is at that time an element of cost of production. Fixed capital, on the other hand, is used in the production of finished goods, or in the furnishing of services throughout its useful life, and enters into costs of manufacturing by means of a periodic allocation of its cost by depreciation.

ECONOMIC NATURE OF FIXED CAPITAL.—John Stuart Mill (Principles of Political Economy) has given a lucid explanation of the economic nature of fixed capital:

Another large portion of capital, however, consists in instruments of production, of a more or less permanent character; which produce their effect not by being parted with, but by being kept, and the efficacy of which is not exhausted by a single use. To this class belong buildings, machinery, and all or most things known by the name of implements or tools. The durability of some of these is considerable, and their function as productive instruments is prolonged through many repetitions of the productive operation. In this class must likewise be included capital sunk (as the expression is) in permanent improvements of land. So, also, the capital expended once and for all, in the commencement of an undertaking, to prepare the way for subsequent operations: the expense of opening a mine, for example; of cutting canals; of making roads or docks. Other examples might be added, but these are sufficient. Capital which exists in any of these durable shapes, and the return of which is spread over a period of corresponding duration, is called Fixed Capital.

COMPONENTS OF FIXED CAPITAL.—The main elements of fixed capital are:

1. Tangible fixed assets
   a. Plant and equipment.
   b. Land.
   c. Natural resources, such as mining properties, timber lands, and oil fields.
2. Intangible fixed assets.
3. Fixed security investments.

Physical property used in manufacturing, merchandising, or in furnishing services is known as **tangible fixed assets.** Tangible fixed assets, such as plant and equipment, furniture, trucks, etc., are subject to depreciation. Land is not subject to depreciation. Natural resources are subject to depletion as ore or oil is extracted, or timber is cut.

Intangible fixed assets include goodwill, trade-marks, patents, copyrights, franchises, and so on. Some intangible fixed assets, such as patents, are subject to amortization.

Permanent **investments** in allied or subsidiary companies may be regarded as part of the fixed capital of a company. Such investments are frequently made in lieu of outright purchase of tangible or intangible assets and include:

1. Stocks and bonds of allied or subsidiary companies.
2. Long-term advances to subsidiaries.

In addition a company may set up funds or earmark security investments for the following purposes:

1. Funds for expansion or replacement of facilities.
2. Funds for redemption of bonds or stock.
3. Funds for employees' pensions.
4. Funds for self-insurance.
5. Funds for specified contingencies.

These funds are in effect part of the fixed capital of the business.

VALUATION OF FIXED TANGIBLE ASSETS.—Fixed tangible assets are normally valued for balance sheet purposes at historical cost less depreciation or depletion. This is in sharp contrast to the practice used in valuing current assets, which are almost invariably valued on a current or liquidating basis. For instance, accounts receivable are

brought to a current value basis by the provision of a reserve for bad debts, inventories are most often valued at the lower of cost or market, and temporary investments at market price or cost, whichever is lower. It will thus be seen that the viewpoint of the banker or short-term creditor dominates the procedures employed in the valuation of current assets. The banker or short-term creditor is interested in the liquid position of the company and its ability to repay short-term obligations. Inasmuch as fixed capital properly should be financed on a long-term basis, an investor or lender does not normally look to the liquidating value of the fixed assets for return of his investment or loan, but rather to the anticipated earnings of the company through the judicious use of its fixed capital.

IMPORTANCE OF PLANNING AND CONTROLLING CAPITAL EXPENDITURES.—Financial control over capital expenditures is basic to the proper administration of a business. Effects of decisions regarding capital expenditures are permanent, far-reaching, and frequently the determining factor in the success or failure of an enterprise. Once acquired, capital assets cannot be disposed of except at a substantial loss. If purchased on a long-term credit basis, a substantial down payment usually is required, and a continuing liability is incurred for the balance, payable over a long period of time. The issuance of long-term bonds to finance the acquisition of capital assets mortgages the future earnings of the company. If increased earnings do not result from the purchase of the additional capital assets, the ability of the company to discharge its financial obligations may be impaired, with disastrous results. Expansion of capital facilities by means of the sale of stock dilutes ownership of the company, and if not carefully planned and controlled it may result in the loss of voting control by management or in the inability of the company to earn an adequate return upon its invested capital.

The basic principles involved in managing and controlling fixed capital apply to every business regardless of size or industry. In a small business, investment in fixed capital is usually by the owner or manager who personally supervises all activities of the business. He can control the relative investment in fixed assets and in current assets. In a large organization no one man can personally oversee the activities of the entire enterprise. Management must rely upon carefully devised procedures, standards, and the recommendations of individuals and committees to whom authority has been delegated. As a business increases in size, procedures for the control of capital expenditures must be tightened. These procedures and techniques must be adapted to the particular company and industry, although the basic principles remain generally applicable.

FIXED ASSETS IN RELATION TO TOTAL ASSETS.—The necessity for careful management of fixed capital assets is evidenced by the very large proportion they constitute of total assets in numerous enterprises. Fig. 1 shows a tabulation, adapted from Hossack (Nat. Assn. of Cost Accountants Year Book, 1936), in which data from balance sheets of 10 industrial companies are extracted to show the relationship between net fixed assets and total assets both during a period of relative prosperity and a depression. It will be noted that

fixed assets averaged 50% of total assets for all 10 companies, and were 75% for one steel producer during the 6 years from 1930 to 1935.

Kind of Company	Total Assets	Net Fixed Assets (Less Deprec. and Depletion)	Percentage Net Fixed Assets to Total Assets
Averages of Five Years 1925 to 1929			
Heavy Machinery Mfr.	$ 65,655,000	$ 33,659,000	51.2%
Meat Packing	467,927,000	202,560,000	43.3
Oil Company	147,226,000	72,262,000	49.1
Steel Producer	671,950,000	460,223,000	68.6
Steel Producer	2,412,316,000	1,654,397,000	68.7
Tractor Mfr.	29,812,000	13,123,000	43.8
Automobile Mfr.	1,058,188,000	328,141,000	31.0
Automobile Mfr.	61,474,000	27,595,000	44.9
Rubber Company	218,908,000	88,519,000	40.4
Food Products	110,024,000	67,542,000	61.4
Average	.....	.....	50.2
Averages of Six Years 1930 to 1935			
Heavy Machinery Mfr.	$ 71,542,000	$ 28,935,000	40.4%
Meat Packing	353,802,000	172,937,000	48.9
Oil Company	159,597,000	97,083,000	60.8
Steel Producer	674,646,000	504,419,000	74.8
Steel Producer	2,142,082,000	1,605,119,000	75.0
Tractor Mfr.	44,338,000	17,654,000	39.8
Automobile Mfr.	1,179,425,000	354,220,000	30.1
Automobile Mfr.	60,379,000	25,517,000	42.2
Rubber Company	202,631,000	87,423,000	43.1
Food Products	207,072,000	116,228,000	56.1
Average	.....	.....	51.1

FIG. 1. Comparison of Investment in Fixed Assets to Total Assets for 10 Industrial Companies

RECOVERY OF FIXED CAPITAL ASSETS.—The term "Fixed Capital Assets" is, in some respects, a misnomer, in that it reinforces the erroneous impression that these assets are a "fixed" or "permanent" investment in the company. Actually, fixed capital expenditures are a deferred cost of doing business. If fixed assets have an estimated life of 10 years, then the cost of these assets is spread over a 10-year period through the medium of depreciation or depletion allowances. Recovery of expenditures upon capital assets is effected either through an increase in profitable sales or a decrease in costs of operation. If profit or loss on operations were calculated over a 10-year period, instead of annually, expenditures upon capital assets would be regarded as any other cost of operation.

The essential nature of capital assets as an item of cost is not changed by the fact that this cost is spread over a period of years. The value of capital assets as listed on a balance sheet (cost of capital assets less reserve for depreciation) is really that portion of their cost which has not yet been allocated to costs of operation. The cost of capital assets allocated to production costs, through depreciation allowances or otherwise, should be recovered in the sales price of the product.

PURCHASE OF EQUIPMENT.—Reasons for purchasing additional fixed capital assets have been summarized by Freeman (Nat. Assn. of Cost Accountants Bulletin, vol. 18) as follows:

(A) To increase revenues—
  (1) by expanding volume of existing products,
  (2) by improving value of existing products,
  (3) by offsetting a decline in volume or value of product due to deteriorating equipment,
  (4) by introducing additional products.
(B) To reduce costs—
  (1) by saving operating costs through substitution of more efficient equipment,
  (2) by saving cost of repairs and time lost due to repairs.

INITIAL COST OF CAPITAL ASSETS AND FUTURE OPERATING COSTS.—The amount and wisdom of the initial expenditure on capital assets may have an important effect upon future operating costs. For example, geographical location of plants with relation to markets and sources of raw materials may result in a difference in operating costs of several hundred thousand dollars a year, but the difference in cost of land and buildings at one location as compared with another may be relatively a small sum. The construction of a general purpose factory building may make it more adaptable to new uses the company may have for it later, and the structure will have a higher resale value should disposal of the plant become necessary later. On the other hand, while a special purpose plant may cost considerably more initially and be less salable, it can result in substantial operating economies. The balancing of initial expenditures against estimated savings in future operating costs requires careful analysis of both the engineering and financial aspects of the company's operations. For instance, the use of structural steel and reinforced concrete will invariably be more costly than mere brick and timber, but future operating costs may be so much lower in consequence that the added outlay may be well worth while. Similarly, wider aisle widths require a higher initial construction outlay, but may result in the more economical use of available floor space, greater flexibility in coping with future changes in production layout and lower costs in handling materials, parts, or finished products. To produce a maximum return upon the investment involved, the design of a plant should include features that yield substantial savings at reasonable cost, with due regard to the advantages of flexibility as regards future uses of the structure. This is well illustrated by the modern so-called "controlled-conditions" plant. As stated by Waidelich (The Controller, vol. 14):

> . . . the best design for a plant must balance amortized first cost against total operating costs if it is to produce maximum return. The "controlled-conditions" plant, in most cases, has a higher first cost than a comparable conventional plant—but, for many applications, this higher first cost is outweighed by the benefits to production and by more efficient operation.
>
> Controlled-conditions plants, by the application of uniform lighting; temperature and humidity control; better control of air-borne dust, dirt and bacteria; and better control of noise, produce:
>
> (1) improved quality of production, and
> (2) increased production.
>
> From an operating viewpoint these two results mean lower unit costs and greater production for the same investment. Only an economic analysis will show whether this improvement in operating costs is worth the additional first cost.

Basically improved quality means that for the same investment and payroll, production is increased by the decrease in rejects.

In evaluating this improvement, two groups of industry must be recognized. In one group are those manufacturers which freely admit that year-round production at the desired level of quality could not be obtained without controlled-conditions. For this group it is a necessity. For the other group, controlled-conditions is an economic question—they must balance the continuing value of increased output against certain added initial costs.

In addition to the increased net production which results from fewer rejects, consider the increased gross production obtainable as a result of more uniform working conditions. This may result from a more comfortable employee—he "feels like working"; from reductions in accidents; from less absenteeism; and from less labor turnover and a better class of employee due to more attractive working conditions.

A BALANCED CAPITAL INVESTMENT.—A careful balancing of facilities at each stage of the productive process is necessary to avoid higher operating costs and delays caused by facility "bottlenecks" and the freezing of capital in idle equipment and partially completed inventories. A lack of balance among productive facilities also burdens the profit and loss account with added depreciation allowances, insurance, and other costs.

Productive facilities at each stage of operations should be sufficient, after providing for anticipated breakdowns and other interruptions in operations, to turn out enough units of product to avoid idle time in succeeding operating departments because of failure to receive adequate work in process. But it is uneconomical for productive facilities in Department A, for example, to have a capacity in excess of that which can be handled by Department B, which processes materials received from Department A, for this creates excessive inventories of partially completed units and unnecessarily increases fixed capital investment.

A balanced capital investment results from relating capital assets to anticipated production volume based upon a careful analysis of sales demands. The productive output of each department and process must be dovetailed into the requirements of the next process or operation. In providing capital equipment at each stage of the productive process. due allowance should be made for breakdowns, retooling and other ordinary and anticipated stoppages in production.

Lewis (Nat. Assn. of Cost Accountants Bulletin, vol. 22) states:

> Fundamentally, the problem begins by determining how much investment should be made in order to create a profit in the goods which are produced by the investment. The purchase of certain facilities without consideration of the effect on other equipment may result in an unbalanced investment which will create idle equipment or excess costs. The effect thereof increases costs by a direct charge against profits and places the company in an unsatisfactory competitive position.
>
> To illustrate the point: The procurement of additional automatic screw machines without consideration of the productive ability of the machines in performing subsequent operations, i.e., milling or grinding, does not permit of greater output of the goods which return profit, but rather stores up partially processed parts which require storage and handling, and an additional investment in machinery. Production is subsequently held up in the screw machine section, thus creating idle time. On the other hand, the new screw machines may process parts to closer tolerances, thus eliminating subsequent grinding operations.

Hence, the first essentials in controlling capital expenditures are a study of:

1. The reasonable share of the total business that would be available to the individual concern.
2. The numerous operations and processes required in the fabrication of the product.
3. The machines and supporting facilities required to perform the various operations and processes, and
4. The time required to perform each process and assembly, including reasonable time allowances for changing of tools, breakdown and other normal manufacturing delays.

The development of this thinking should result in a statement showing the number of machines, supporting facilities, and floor space with an evaluation of the costs thereof, and should definitely indicate to management the capital required to attain a balanced investment as related to the volume of business required to warrant the expenditure.

NEW EQUIPMENT PURCHASES AND OBSOLESCENCE OF OLD.—Should indicated profit from purchases of new equipment be sufficient to provide for the undepreciated balance at which old equipment is carried on the books of the company? This question arises whenever the desirability of purchasing new equipment to replace old is under active consideration. An interesting discussion on this point appears in Budget Methods and Procedures of Manufacturing Companies (1938 Spring Conference of Controllers) wherein Anderson commented:

I do not believe that the book value of the old equipment, or the depreciation or fixed charges on the old equipment, have any bearing at all on what should be done. Very often machinery manufacturers make up a statement showing comparative costs with old equipment and with new equipment, which show much lower costs on the new equipment—but they include the fixed charges in both the old equipment and the new. You already have the old equipment. If you do not write it off the books through depreciation, you have to write it off some other way.

Our conclusion was that the correct method is to ignore entirely the fixed charges on the old equipment if the new equipment can show a saving. In other words, if you can get enough direct savings on labor, power and so on to pay the fixed charges on the new equipment, and have something left over, then it may be profitable. . . .

Of course, it is true that if you have to write off a million dollars in one year, that may be an important practical factor in deciding what to do. However, I do not believe it is a factor in the ultimate profit realized. What has really happened is that your old still is obsolete now, and you have incurred a loss on it. You must recognize that loss somehow. Of course, if the old still remains in use, you are not required to write it off, but there is a loss just the same.

The chairman of the conference then asked for a show of hands among the controllers present on the question: "How many corporations here represented take obsolescence into consideration when figuring savings on new equipment?" The vote was "fairly even," and he commented:

I think it is more a matter of policy than anything else. In ordinary circumstances you can perhaps absorb obsolescence on a piece of old equipment in determining savings, and still show the savings necessary to secure a new appropriation. However, there are extreme situations where you could not begin to absorb the amount that has to be absorbed

in scrapping the old machines. Sometimes we have a large amount of obsolescence thrust upon us which it is impossible to foresee. In such cases, it is both a contingency and an operating item.

In weighing the financial desirability of replacing capital assets, consideration should be given to the number of years for which the estimated savings will be realized, as well as the time required to pay out the additional investment. A troublesome factor in any such calculation is estimating the probable life of new equipment, as obsolescence could start a vicious circle in which successive replacements would make necessary the writing off of undepreciated balances. Some concerns have adopted a rule of thumb that direct savings must be sufficient to pay out the investment in 3, 4, or 5 years. Such a rule of thumb should be based on the company's previous experience with capital asset replacement.

HANDLING SURPLUS CAPITAL ASSETS.—Unused capital assets not only represent an unprofitable investment of the capital of a company, but increase costs of operation because of the necessity for insurance, additional storage space, watchmen's salaries, etc. One large company (see Fact. Mgt. & Maint., vol. 104) installed a system of centralized control over the movement and disposition of all surplus, idle and obsolete machinery and equipment of its more than 25 manufacturing plants, and reported many benefits such as

1. Saving in capital expenditures through the transfer of unused equipment from one plant to another instead of purchase of similar new equipment.
2. Provision of spare equipment or parts for breakdowns or emergencies.
3. Utilization of inactive equipment for experimentation in new processes or improvement of existing processes.
4. Reduction of idle equipment to a small proportion of investment and prevention of undue accumulation of obsolete equipment.
5. Higher salvage returns.

Basically, this plan involved taking a physical inventory of all machinery. Inactive machinery or equipment was reported by the local plant to the central office and classified as follows:

Class 1 (inactive usable).—Machine is still of possible value to the local plant which has reported it, and is to be kept there for further possible use. Light machinery might be moved inexpensively to storage space, but heavy machinery is left undisturbed to avoid unnecessary handling costs.

Class 2 (inactive unusable).—Machine is of no further value to the local plant, but has a possible value for transfer to allied plants or for sale in the used machinery market. It is moved to storage space, or left in place if removal is difficult, until its final disposition is determined.

Class 3 (scrap).—Machine is unusable and has no resale value. The local plant's salvage department is instructed to remove all good usable parts, and the remainder of the machine is broken up for consignment to the junk pile. Junk is disposed of when economical lots become available.

INSURANCE ON FIXED CAPITAL ASSETS.—Consideration should be given to insuring fixed assets against loss resulting from fire, sprinkler damage, explosion, or other hazards. The adequacy of insurance coverage should be reexamined at regular intervals. A fire may

destroy more than the physical assets of a company; the loss of productive facilities may result in inability to supply customers' demands and thus permit competitors to usurp a company's market while plant and equipment are being restored. In some cases, such loss is irreparable.

Self-insurance may be more economical for a company whose plants are isolated and scattered over a wide area, dispersing the risk. However, unless self-insurance is reinforced by a fund consisting of cash or quickly convertible securities it is of doubtful value. A mere bookkeeping entry setting aside a reserve for insurance out of surplus is an illusion. Capital assets which have been destroyed can be replaced only by expenditure of cash to rebuild them or acquire the equivalent. A reserve for insurance merely restricts the amount of surplus available for dividend payments.

The usual **coinsurance clause** in a fire insurance policy provides that "in the event of loss this company shall be liable for no greater proportion thereof than the sum hereby insured bears to ..... [usually 80%, though other percentages are common] of the cash value of the property described herein at the time when such loss shall happen." The insured corporation thus acts as coinsurer with the insurance company, and to a larger extent if the policy is for less than 80% of the sound value of the property at the time of loss.

Where fixed assets have enhanced substantially in value, it may be found that a policy which was adequate at one time may be inadequate at the time a fire occurs, so that the corporation becomes coinsurer with the insurance company for an undue amount. In a period of higher prices for capital assets, this problem becomes of particular importance.

Planning of Capital Expenditures

ADVANTAGES OF LONG-RANGE PLANNING.—Planning for capital expenditures must be considered from a long-range point of view for the following reasons:

1. Capital expansion and replacement of facilities must be adapted to anticipated sales requirements.
2. Each year's expansion should be fitted into an orderly plan of growth, whenever possible.
3. The profitability of capital expenditures should be tested from a long-term point of view.
4. Construction contracts, plant sites, franchises, water power rights, and so on usually must be contracted for in advance.
5. Capital expenditures must be integrated into the cash planning of the company so that funds may be provided when needed either from internal or external sources.
6. Wherever possible, it is more economical to make large capital expenditures during depression periods, so as to take advantage of low prices and to have full facilities available during the subsequent period of increased business activity.

LONG-RANGE FORECASTS.—The Controllers Institute of America conducted a survey of long-range forecasting by large corporations (The Controller, vol. 14), and reported its findings as follows:

Forty replies were received from a cross-section of companies in various kinds of business. It is interesting to note that only five of the companies are regularly preparing five-year forecasts, six others are

preparing forecasts for two or three years and ten others have prepared five-year special forecasts mainly for capital expenditures. . . . Most of them recognize the worth of appraising their future operations and requirements particularly with respect to capital needs for plant and equipment and for long-term commitments.

One large steel company replied to the survey:

Through historical projection methods supplemented by anticipated commercial and technical changes in product demand, we have developed forecasts up to twenty years to be used in planning the design, capacity, and location of new facilities, to determine sales product policies, and to plan the location and extent of the sales organization.

For these purposes, it is our opinion that a five-year forecast is not adequate. However, in determining future results of operations using existing facilities to produce current demand, forecasts of one to five years have been of considerable value in establishing short-range management policies.

A farm machinery and equipment company stated:

One of the longest forecasts we have made is that pertaining to our post-war volume of business. The primary purpose of this estimate was to determine the productive capacity needed and the extent of the plant expansion program required to meet sales demands. In making this forecast we were concerned not so much with the sales possibilities immediately following the war but more particularly with the normal post-war possibilities after this "flush" demand had been completed.

Many companies are hesitant about long-range forecasting, because of uncertainties as to future sales. A meat-packing company stated:

Occasionally, decisions do have to be made where some assumption concerning long-range trend of our business has to be made. As for example, in connection with capital investments, when needs of this kind have arisen, special studies have been made to serve as a basis for such assumptions.

I believe there is a danger in making very long forecasts in that so many drastic revisions are likely to be necessary from time to time that confidence in the whole budgeting program on the part of the heads of the business may be lessened.

PLANNING CAPITAL EXPENDITURES FOR ANTICIPATED GROWTH.—A large optical company reported to the survey of the Controllers Institute:

Long-term projection for products is essential to good plant planning. Otherwise, plant planning from year to year definitely creates large moving expenses and often loss of invested capital. In other words, if a plant is arranged on a 1937–1939 sales volume of $5,000,000 and no provision is made, as an example, for a 10% trend of growth per year which in ten years would create a business of $10,000,000, the company will then find that it will be arranging its plant and facilities many times because it did not look forward to an either upward or downward trend of growth by product.

Our normal sales trends of growth, as an example through 1950, are all completely summarized. All accounts entering into the profit and loss statement are projected, including number of people required at each level with certain deviations allowed for possible changes in wage rates. Please understand that we are not attempting to estimate the level of the business index in 1948, 1950 or 1955. We are merely projecting business at normal which we then adjust from year to year on the basis of our business forecast which is made each year for one year in advance.

TIMING OF CAPITAL EXPENDITURES.—Wherever possible, capital expenditures should be made during periods of depression so as to take advantage of low prices of material and the greater availability of labor. Capital additions during the valley of a business cycle will be available to meet the sales requirements of the succeeding period of prosperity, whereas construction undertaken at the peak of prosperity may not be completed until the subsequent period of depression. Unavailability of funds for capital expansion and rehabilitation during a depression may, of course, require variation in this procedure. Long-range planning of capital construction is thus necessary for the proper timing of capital outlays with relation to the business cycle, so that funds will be on hand when they can be used to best advantage.

Capital expenditures invariably result in an increase in fixed expenses which can be taken care of easily during a period of profitable sales, but which may prove burdensome during a business recession. By long-range planning of capital expenditures, their impact upon depreciation and other fixed expenses is known in advance, and allowance can be made for them in projecting operating results.

ESTIMATES OF CAPITAL ASSET REPLACEMENTS.—In long-term planning for replacement of capital assets, a distinction should be made between replacements resulting from normal wear and tear plus foreseeable obsolescence, and those arising from extraordinary obsolescence. The former can be estimated with reasonable accuracy over a period of time, while the latter are in many cases unpredictable. Extraordinary obsolescence of capital assets frequently is far more important than either normal obsolescence or depreciation in affecting fixed capital requirements of a business. As stated by Anderson (Budget Methods and Procedures of Manufacturing Companies, 1938 Spring Conference of Controllers):

> In the long-range physical property budget there is one factor which can in many businesses be estimated with some degree of accuracy—that is, the probable plant and equipment replacements which will be necessary because of exhaustion of assets through wear and tear, or because of normal, gradual obsolescence. This is essentially an engineering problem, and while there is a considerable latitude as to the time at which any given replacement can be made, nevertheless, a careful survey will in most cases yield a reasonably dependable forecast. Such a survey cannot, of course, anticipate extraordinary obsolescence due to sudden changes in style or product or in the art of manufacture. In companies manufacturing a wide variety of products in a plant made up of many relatively small and different units of equipment, past experience may furnish a clue as to the probable rate of such extraordinary obsolescence, but in many industries estimates of this type of obsolescence may be little more than guesses, and in such cases the obsolescence factor is often far more important than exhaustion through wear and tear.

Fixed Capital Turnover

DEFINITION AND CALCULATION OF THE FIXED ASSET TURNOVER.—The turnover on fixed property investment is defined by Bliss (Management Through Accounts) as "the relationship between the volume of business done and the amount of capital tied

up in fixed property investments. This is one of the most fundamental relationships in an industrial enterprise." The turnover may be figured in either of two ways:

1. As the dollars of sales per year for each dollar of fixed property investment.
2. As the physical units of volume per year (pounds, barrels, cases, etc.) for each dollar of fixed property investment.

Of these methods the latter is the sounder, since it is based on fixed measures which are unaffected by changing price levels.

Computing this turnover **on the basis of money sales** and fixed property investment may be satisfactory in normal times when prices are steady. But prices for products may fluctuate so greatly that changes in this turnover might be misleading unless changing price levels are recognized. Where no measure of physical volume is available, it may be approximated by adjusting the sales figures sufficiently to eliminate the effect of changing price levels. This may be done by use of a price index. Published price indexes may be used when they are fairly representative of the trend of values of the particular products in question. Oftentimes, an individual price index may be readily prepared on the basis of representative items of products handled.

The value of this ratio also depends upon the basis of fixed asset valuations in the balance sheet. Obviously, these will largely influence the ratio, and affect validity of comparisons.

EFFECT OF INCREASE OR DECREASE IN RATE OF TURNOVER.—All proposals to increase fixed property investments should take into consideration the effect of this turnover. Additional property investments should be justified by a similar relative and permanent increase in volume of business, in order to protect this turnover. To expand properties on a temporary increase in the volume of business, or on an increase resulting from inflated prices, would not be conservative. The trend of this turnover is an indicator of the trend of **unit fixed property expenses on the volume of business done.**

When a business makes expenditures for added fixed assets, an added burden of expenses in the form of insurance, taxes, and depreciation is incurred, as well as an added financial burden in the form of interest or dividends which should be earned on the increased capital invested. These fixed expenses bear quite a constant relation to the amount of fixed property. Unless an increased volume of production with corresponding increase in income is realized from the added fixed investment or a definite saving is effected in the cost of production, the added expenses become a heavy handicap on the company's finances. As this turnover on fixed property improves, the unit expense decreases; and as the turnover decreases, the unit expense increases.

The results of an increased turnover on fixed property are reflected in the following illustration:

Assume annual volume of business of	$300,000
Fixed property investment of	100,000
Indicating a turnover of	3 times
Fixed property expenses—interest, depreciation, taxes, etc.	20,000
Which figures on sales	6.6%

Assume that by increasing the fixed assets by $25,000 the volume of business could be increased to	$400,000
On the fixed property investment of	$125,000
The turnover would be	3.2 times
Fixed property expenses	$ 25,000
Which figures on sales	6.25%

The percentage of upkeep and carrying charges decreases from 6.6% to 6.25% of sales, a decrease of .35%, as a result of the higher turnover. Incidental economies are also likely to result because of the increased per cent volume of production.

COMPENSATING FACTORS OFFSETTING DECREASE IN RATE OF TURNOVER.—A decrease in the rate of fixed capital turnover may be caused by the addition of labor-saving machinery. Often the savings in labor cost will more than offset the increase in carrying charges of the added fixed investment. Care must, therefore, be exercised in making deductions from changes in the rate of fixed capital turnover. Unless it is known to what extent the additions to plant have been made to increase output, and to what extent they have been used simply to reduce the labor requirements, the ratio will not possess its full significance.

The Capital Budget

CONTENTS OF CAPITAL BUDGET.—The capital budget covers all proposed outlays for a specified period for:

1. Additions and extensions to plant and equipment.
2. New plant and equipment.
3. Replacement of whole units (the salvage value of old items being deducted from the cost).
4. Cost of land upon which a plant is to be constructed.
5. Furniture, fixtures and office equipment.

On the other hand, the following items are current costs of operation, and should be included in the operating rather than the capital budget:

1. Maintenance and repairs.
2. Small tools.
3. Repair parts.
4. Depreciation of fixed assets.

Some companies include estimated requirements for maintenance and repairs in the capital budget. Where this is done, separate totals are shown for the amount regarded as capital outlay and the amount which will be considered current operating expense. The latter portion is then transferred to the operating budget for each period involved.

The capital budget is known variously as the Construction Budget, Plant and Equipment Budget, Factory Expansion Budget, Plant Additions Budget, Facilities Budget, Capital Outlay Budget, Budget of Capital Expenditures, or other significant designating titles.

PREPARATION OF CAPITAL BUDGET.—A request is usually issued by the head office to the operating units of an enterprise for proposals for the capital expenditures budget. Frequently these requests are issued at the same time as are requests for the operating budgets. Fig. 2 shows the capital budget form used by one large company.

Company _____ Date _____

Capital Projects			Expenditures		Anticipated Date of New Expenditures
Item Number	For	Amount	Actual to Date	Balance	

Fig. 2. Capital Expenditures Budget

Instructions on the reverse of this form are as follows:

List on this form all projects or acquisitions of a capital nature now under construction or for which commitments have been made, and give the anticipated date of completion or fulfillment. Group items by fiscal year periods for the next five years and state the total for each year. If approved appropriations do not already exist, please prepare and submit "Appropriation for Capital Expenditure" forms to cover items in the following categories listed hereon:

(a) Projects now under way on which further payments are to be made.
(b) Projects not under way but on which commitments have been made.
(c) Projects on which no commitments have been made but for which a definite appropriation is desired.

Budgeted expenditures should include only major capital items involved in expansion and improvement plans. Minor capital expenditures necessary for normal operating needs are charged against the blanket appropriation and need not, therefore, be listed and covered by individual appropriations. A blanket appropriation should be included for each fiscal year. "Appropriation for Capital Expenditure" forms are to be prepared at the time commitments are to be made, and no commitment is to be made until approval is granted.

The capital budget is made up of plant and equipment budgets of the several departments of the business. General managers of each operating unit or department submit requests for authority to make such outlays which they consider necessary or desirable. These requests are forwarded to the budget director, the controller, or an assistant to the president, according to the organizational set-up of the company. The budget director or other official entrusted with responsibility for assembling the departmental capital budgets consolidates the requests and reviews them prior to presentation to higher authority, which may be the president, the executive vice-president, or the appropriations committee, who in turn presents the capital budget to the board of directors for final approval.

The capital budget is usually approved by the board of directors only as to the total dollar amount involved. Individual projects must be approved by an authorized official or committee after study of the particular project. The Capital Appropriations and Expenditures Manual of one company states on this point:

The capital expenditures budget serves as an overall summary of proposed expenditures and an indication of the amount of cash which must

be provided to carry through the proposals. As such, it serves as a guide to the top management executive charged with coordination and approval of these projects for all the various operating units. Since individual projects may be approved as submitted, rejected, revised or deferred, the approval of the reviewing officer will not be indicated on the capital expenditures budget form itself. Instead each item listed on the budget form should be supported by an appropriation request form.

THE APPROPRIATION REQUEST.—Individual appropriation requests are required for each item of capital expenditure as it is made, even though it is included in an approved capital budget. The individual appropriation requests are approved after review by an authorized official or committee. The size of the expenditure is a determining factor in the rank of the official whose authorization must be secured. Where provision for a project has not been made in the capital budget, approval of a higher ranking official is required than where it is covered in the budget.

The appropriation request may be required to specify the reason for the expenditure. One company requires that the reason be specified as:

New business.
Increased needs of present business.
Normal replacements.
Change in manufacturing method.

Another classification frequently used is:

Cost reduction.
Production of a new product.
Additional volume of existing product.
Replacement of existing equipment.

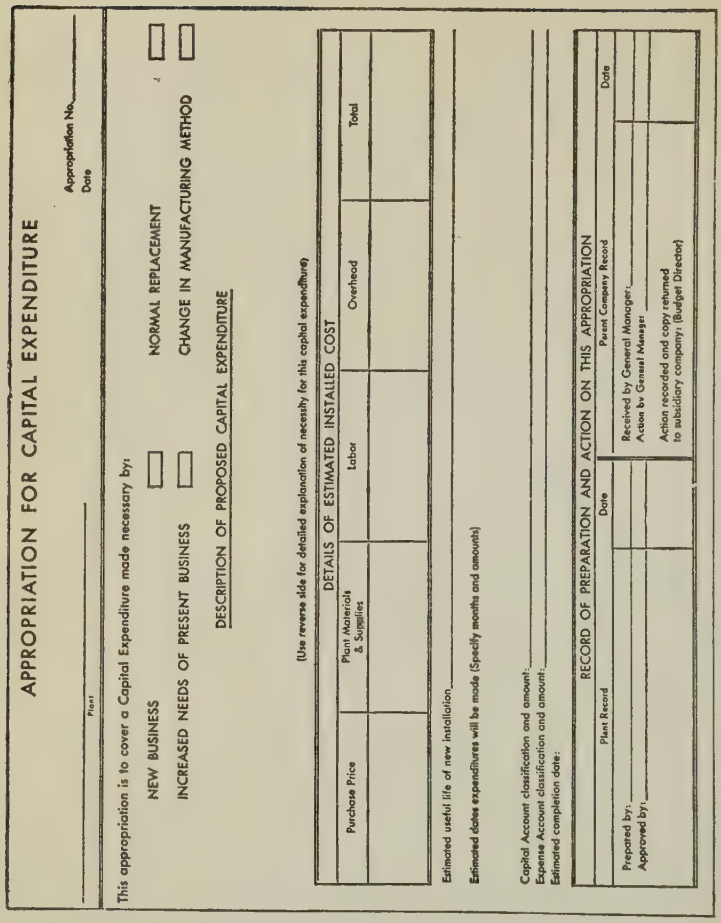
Some companies require the following information to be included in the appropriation request:

1. Purpose of expenditure.
2. Estimated costs of acquisition or construction.
3. Loss on assets retired.
4. Savings resulting from capital expenditure.
5. Fixed costs resulting from new capital asset, such as annual depreciation, insurance, taxes, etc.

Forms of appropriation requests for capital expenditures are shown in Figs. 3 and 4.

Approved appropriations remain valid until the project has been either completed or cancelled. Upon completion of the project, should any unexpended balance remain, the appropriation for it should be cancelled and not be made available for other purposes.

If the original appropriation does not prove adequate to cover the full cost of the project, a supplemental appropriation will be needed. Many companies permit deferment of the supplemental appropriation request if the excess expenditure will not be greater than 5% or 10% of the original appropriation. Some companies also have a provision that this deferment of the supplemental request is contingent upon the project being completed within 30 or 60 days. Most companies provide that supplemental appropriations are unnecessary if the amount of the excess expenditure is small, such as $50 or $100.



APPROPRIATION FOR CAPITAL EXPENDITURE

Plant _____ Appropriation No. _____ Date _____

This appropriation is to cover a Capital Expenditure made necessary by:

NEW BUSINESS ☐ NORMAL REPLACEMENT ☐

INCREASED NEEDS OF PRESENT BUSINESS ☐ CHANGE IN MANUFACTURING METHOD ☐

DESCRIPTION OF PROPOSED CAPITAL EXPENDITURE

(Use reverse side for detailed explanation of necessity for this capital expenditure)

DETAILS OF ESTIMATED INSTALLED COST

Purchase Price	Plant Materials & Supplies	Labor	Overhead	Total

Estimated useful life of new installation _____

Estimated dates expenditures will be made (Specify months and amounts) _____

Capital Account classification and amount: _____

Expense Account classification and amount: _____

Estimated completion date: _____

RECORD OF PREPARATION AND ACTION ON THIS APPROPRIATION

Plant Record	Date	Parent Company Record	Date
Prepared by: _____		Received by General Manager: _____	
Approved by: _____		Action by General Manager _____	
		Action recorded and copy returned to subsidiary company: (Budget Director)	

FIG. 3. Appropriation Request for Capital Expenditure

PROJECTS INCLUDED IN CAPITAL BUDGET.—Experience has shown that many projects are recommended for inclusion in the capital budget which, while praiseworthy in themselves, may not be necessary for the enterprise or likely to produce additional earnings commensurate with the capital involved. Frequently department heads place requests for new equipment merely because of a normal human desire to have the finest and most modern equipment available. In many cases, in an effort to anticipate future requirements, requests are made for equipment based upon relatively remote needs. To keep

Appropriation Request

..... DIVISION

Appropriation Request No. .....

APPROPRIATION REQUEST FOR (Describe in detail): .....
.....
.....

DETAILS OF ESTIMATED COST: .....
.....
.....

ESTIMATED DELIVERY OR COMPLETION DATE: .....

ESTIMATED DATES AND AMOUNTS OF CASH REQUIRED: .....
.....

ESTIMATED FIXED EXPENSES RESULTING FROM ACQUISITION: .....
(Estimated depreciation, insurance, etc.)

WAS THIS ITEM INCLUDED IN CAPITAL BUDGET? .....

ANTICIPATED SAVINGS: .....

INDICATE URGENCY OR DESIRABILITY OF THIS EXPENDITURE: .....

Approved ..... Approved .....
Budget Director Plant Manager

Approved .....
For Appropriation Committee.

FIG. 4. Divisional Appropriation Request

annual fixed capital outlays within reasonable limits, capital budget control procedures must see that more desirable projects get the right of way over others.

Capital expenditures may be essential to the maintenance of the concern's competitive position. In such cases, a company has little choice but to include these projects in the capital budget. Replacements of essential capital assets as a result of normal wear and tear or obsolescence also are unavoidable. However, timing of such expenditures frequently can be advanced or delayed, depending upon the company's financial position.

Many expenditures find their justification in the increased earnings which will result. Suggested projects of this kind should be listed in the order of their profitability, with due consideration to the effect of postponement or cancellation upon other phases of the company's business. More desirable proposals can then be launched first.

It is good practice to require operating departments to submit proposals for inclusion in the capital budget under the following categories:

1. Essential.
2. Profitable.
3. Desirable.

4. Replacements resulting from normal wear and tear or normal obsolescence.
5. Replacements resulting from extraordinary obsolescence.

Explanations should also be required as to why a particular project is classified under one or another of these headings. Projects classified as profitable, for example, should be supported by computations showing the time within which the investment can be recovered from the net cash receipts, together with an indication of the reductions in costs to be expected. Replacements of capital assets may be further classified as essential or profitable. As an example, the budget manual of one large company states:

> By November 1st each Divisional Executive will develop within his division and submit to the Appropriations Committee an itemized estimate of all such expenditures for which justifiable need is definitely anticipated during the following year, giving substantiating earnings, payout, or other reasons in each case. Individual projects should be divided into four classifications:
>
> (a) Essential to satisfactory operations.
> (b) Desirable on an earnings basis (estimated payout ..... years).
> (c) Desirable from the standpoint of logical expansion and development, but not urgent.
> (d) Replacement of necessary assets.

THE APPROPRIATIONS COMMITTEE.—The Appropriations Committee is an excellent medium through which to control capital expenditures. The departmental estimates are often submitted to this committee for review and classification of projects as to urgency and desirability from the over-all viewpoint of the company. In this way the final capital budget as submitted to the board of directors or the president represents the considered view of ranking officials who can integrate proposed capital expenditures with the business and financial plans of the company. When individual appropriation requests are then submitted to this committee, a careful analysis can be made of each project in the light of the following:

1. Resulting reduction in cost of operation.
2. Relation to requirements of the sales budget.
3. Improvement in quality and variety of the company's products.
4. Prevailing economic and financial conditions.
5. Funds available for capital investment.
6. Effects upon future earnings.
7. Payout period of the capital expenditure, i.e., the number of years required to pay out or return the capital investment.
8. Extraordinary obsolescence of productive facilities.

The appropriations committee is usually assigned limits of authority within which it can approve individual appropriation requests included in the approved budget, the maximum varying up to $25,000. Projects above the assigned limit are referred by the committee to a higher authority, as are those within the assigned limits but not included in the capital budget.

A survey of a number of large companies by Holden, Fish, and Smith (Top-Management Organization and Control) produced the following recommendations regarding composition of the appropriations committee:

Membership, as with any committee, should include only those who definitely add to the group judgment. In this case it could appropriately include the chief engineer, because of his ability in judging the soundness of construction plans, costs and alternatives; the comptroller, for his financial and economic viewpoint, particularly as to the availability of funds and correct time for undertaking the project; the director of organization and cost control, for the benefit of his viewpoint on cost reduction, effects upon the organization and manpower considerations; and the divisional executive concerned, who attends to present his case and see that all factors are given consideration. Others may be requested to attend when necessary, such as the research manager to advise on new developments.

The most important feature of this particular procedure, however, is the analytical agency which reviews all the proposals, and by whose analyses the committee must be very largely guided. A very capable individual—one of the stature of a departmental manager—is required to head the analytical work. Upon the projects presented the company will spend very large sums, and it is therefore essential to have in this position a person able to present consistently high-quality, accurate analyses. This person might also be the chairman of the committee, he and his staff constituting an independent, full-time agency concerned with appropriation analyses. In some companies a section of the engineering department makes the analyses. Others object to this on the ground that the engineering department also works out the designs, methods, and savings, and is therefore not in a position to criticize and reject its own work. For that reason they prefer an independent agency embodying adequate engineering talent.

APPROVAL OF CAPITAL EXPENDITURES WITHOUT A CAPITAL BUDGET.—Many companies do not prepare a capital budget, but review each request for capital expenditures individually on its merits. Justification, in the form of an engineering analysis, usually accompanies the request for authorization to make the purchase or to commit the company. Holden, Fish, and Smith (Top-Management Organization and Control) report that:

Authority for this final approval is delegated in varying degrees according to levels of management. Furthermore, a wide variation exists among the companies studied as to the limits assigned to these levels. This variation is indicated in the following tabulation:

Level of Management	High Limit	Low Limit	Representative
Board of Directors	Only those requiring a bond issue	All over $500	All over $25,000
General Management	$300,000	All over $ 25	All between $1,000–$25,000
Divisional Management ..	$150,000	0	All between $500–$1,000
Field Management	$ 2,000	0	All up to $500

Thus, under representative practice a project over $100,000, originating in the field, would require the successive approvals of the field manager, general management, and finally the board of directors.

DISADVANTAGES OF CONTROL WITHOUT A CAPITAL BUDGET.—Control of capital facilities is difficult without a capital budget. For one thing, preplanning of a company's financial position is difficult inasmuch as probable capital requirements have not been calculated, but each such project is taken up individually as the need presents itself. Since simultaneous consideration of all capital outlays

proposed is not provided, projects are not selected in the order of essentiality or desirability.

It must be borne in mind that additional investment in facilities raises the break-even point of an enterprise. If capital outlays are not carefully integrated with sales efforts and financial resources, an expansion program may have marked adverse effects upon earnings and liquidity.

CAPITAL EXPENDITURE CONTROL.—Control over capital expenditures is facilitated by classification of outlays as:

1. Major projects.
2. Routine expenditures.
3. Replacements.

The line of demarcation between major and routine projects is dependent upon the size of the company and the consequent degree of control of multiples of $100 of capital expenditures exercised by top management. Sound control of major projects involves careful analysis of the initial cost of each purchase or installation, as well as of the annual cost of maintenance. Maintenance costs necessitated by major capital expenditures include repairs, depreciation, property taxes, insurance, additional labor costs, etc. The effect of proposed capital expenditures upon fixed charges, cash requirements, and prospective earnings should be weighed. Prior to the approval of a request for capital appropriation, careful comparison should be made of the cost of production with existing and with the proposed equipment.

Routine expenditures require control inasmuch as multiples of small authorizations may in the aggregate exceed a single major project. However, without in any way diminishing the degree of control, it is frequently possible to delegate authority to approve routine capital expenditures to lower echelons of managerial authority.

Wherever possible, recommendations for capital expenditures should be forwarded to the plant methods and cost control sections for their review. When a recommendation is approved, estimates of the cost of the facility should be prepared and savings in direct labor, material consumption, and overhead costs estimated.

Lewis (Natl. Assn. Cost Accountants Bulletin, vol. 22) calls attention to the desirability of "placing the responsibility for the initial consideration of the worthiness of capital expenditures with a division disassociated from manufacturing activities but experienced in financial values and having sufficient experience to obtain and weigh all elements of the problem."

He points out that an annual or semiannual budget for all plant expenditures is the correct approach and that, while careful consideration should be given in projecting these budgets, the individual facilities cannot always be accurately determined. The capital budget indicates only the overall expenditures which are considered in planning the financial operations of the company. Direct control of each request for capital expenditure is necessary. Lewis has outlined at length a procedure for more direct control of capital expenditures, as follows:

1. As the result of an idea created by a foreman, design-engineer or process-engineer, time-study man, direct workers or others, that the acquirement of a new facility would result in lower cost, higher quality or

increased output, a recommendation is forwarded to the plant methods and development section.

2. The suggestion is studied, and if it is found to hold promise, specifications and (wherever necessary) outline drawings are issued by the plant methods and development section which, together with a "Request for Estimate," is forwarded to the plant accounting section.

3. The estimator associated with the plant accounting section calculates the cost of the facility and collaborates with the time-study section in determining the direct labor savings. He also determines whether the type of expenditure warrants a capital or expense classification. The aforementioned estimator also considers the need for the facility in the light of production requirements and proper balance with other equipment.

4. The results of the foregoing study are summarized on a request for estimates which is then returned to the manager of the division directly affected by the project, together with the recommendation of the plant accounting section.

5. If the divisional manager approves the project, the request for estimate is returned to the plant accounting section and serves as authorization for issuance of an "Appropriation Request."

6. The appropriation request contains the following information: amount, expected savings, reasons, classification of expenditures (capital or expense), and value of abandoned equipment. It is forwarded for proper approvals to: Division Manager, if up to $300. Department Manager, if from $301 to $750. Department Manager and Executive Vice-President, if over $750.

7. An approved request for appropriation permits of the release of works orders and requisitions for purchases, by the plant accounting section.

8. Copy of the approved requests is forwarded to the general or works accounting section and is used for the following purposes:

a. For acceptance of charges which are accumulated and compared monthly. (Note—when expenditures equal 75% of allowed amount, the divisional manager is notified.)
b. To obtain the appropriation for expenditure in excess of amounts originally allowed.
c. To check the material costs and the labor rates established for processes performed by the new facility in order to determine whether they are in accordance with the savings originally contemplated.

BLANKET APPROPRIATIONS.—Most companies set up blanket appropriations to cover minor capital expenditures made necessary by normal operations, as well as those which are not determinable at the time the budget is completed. Usually, a limit is set on the amount of any one purchase. Where there are a number of operating units, the amount of the blanket appropriation is fixed after consideration of the normal replacement requirements of each.

It is a good policy to restrict blanket appropriations so that purchases of major capital items will not be charged to them. In the event of an emergency, however, the blanket appropriation should be available for other purchases, provided an explanation is given at a later date.

Blanket appropriations expire at the end of the fiscal year. A new blanket appropriation should be granted for each year.

REVIEW OF CAPITAL BUDGET.—The budget manual of one company defines the responsibility of the several authorities reviewing the capital budget as follows:

The appropriations committee, consulting if necessary with the divisional executive concerned, will critically review divisional estimates as to urgency, desirability, profitability, cheaper alternatives, and will then consolidate and submit the estimates to the executive committee with its recommendations.

The executive committee will review the consolidated estimate from an overall viewpoint, satisfying itself as to necessity, profitability, justification and urgency of each project, considering the desirability of deferring some projects so that they may be used as fill-in jobs during slack periods to help stabilize employment and so lessen the shock of depression, taking into account proper coordination of divisions, and submitting a final budget estimate with recommendations to the board of directors by .....

The board of directors will consider the proposed budget from the standpoint of overall policy, taking into account the availability and judicious allocation of funds, general business, economic and financial conditions and sales projects, and will finally pass upon the budget in principle.

Some companies appoint a **Facilities Committee** to review the capital budgets of their several divisions. The facilities committee is frequently composed of a chief engineer, the budget director, the purchasing officer and representatives of the major operating divisions.

REPORTS OF CAPITAL EXPENDITURES.—As an aid to control over capital expenditures, monthly reports should be prepared by each operating unit and forwarded to the budget director or to the official designated to control capital expenditures. In the preparation of these reports, particular stress should be laid upon the sufficiency of the appropriation request. If indications are that the appropriation request will be underrun or overrun, this should be indicated. It is important that the progress in each department be apparent from the report, and the estimated cost to complete the construction or the purchase of a facility be shown.

CAPITAL BUDGET AND CASH PLANNING.—The capital budget, when completed, is a summary of proposed expenditures for the period and should be interrelated with the general cash forecast. In this way, allowance can be made for plant and equipment outlays in cash planning.

Outlay for capital requirements must be related to the cash forecast for a company. This is particularly necessary when capital replacements or additions are made in whole or in part with reinvested earnings. Unless the amount allocated to capital expenditure is pre-planned, there is danger of diverting cash required for working capital to the acquisition of fixed assets, thereby impairing the ability of the company to discharge its current financial obligations.

When capital expenditure exceeds the annual provision for depreciation, the excess must come either from reinvested profits, borrowing or the sale of stock on the one hand, or from cash on the other. If cash is used up for the purpose, it represents a diversion of working capital into fixed capital.

The maximum funds available for capital expansion without impairment of working capital are measured by:

1. Reinvested earnings for period.
2. Annual allowance for depreciation and depletion.

3. Proceeds from sale of additional stock.
4. Proceeds of bond issues or term loans.

Failure to purchase capital assets during any year, on the other hand, will result in an increase of working capital to the extent of the provision for depreciation. This can be illustrated by the following:

Sales		$1,000,000
Costs	$700,000	
Depreciation	100,000	800,000
Net profit		$ 200,000

It will be noted that receipts are $1,000,000 and outlay $700,000, so that working capital, and eventually cash, is increased by $300,000, or the sum of net profit and depreciation. But whenever equipment is replaced, the cost of the replacement will then come out of working capital at the time.

A large oil company (Policyholders Service Bureau, Metropolitan Life Ins. Co., The Cash Budget) requires its operating departments to report separately "(a) additions to plant and equipment, and (b) operating expenditures. Plant additions are reported to the head office, classified by months for the entire budget period, on a form similar to Fig. 5. This form shows a major segregation of each month's data between approved and contemplated projects. The approved projects are those included in the department's investment budget for the current fiscal year, and which have been formally authorized by the head office. The contemplated investment items include projects believed desirable by the local management but not yet authorized. Each of these classes of expenditures is further segregated in the manner shown in Fig. 5."

By classifying proposed capital expenditures into approved and contemplated items, and by further classification of contemplated expenditures into those which are absolutely necessary and those which are merely desirable, it is possible to integrate the capital budget into the over-all financial planning of the company. Dividend policies can be formulated in harmony with capital expenditure and over-all cash requirements of the company. Issuance of securities can be planned on a long-term basis, and thus adapted to changing trends in the financial markets. The volume and timing of capital expenditures are thus related to other phases of corporate operation, instead of taking place in a vacuum until it becomes unbalanced or an undue drain upon cash resources, whereupon emergency remedial action becomes necessary.

CAPITAL EXPENDITURES AND FINANCIAL PLANNING. —Capital expenditures cannot be viewed from a narrow or short-term point of view, but must be integrated into the financial and business programs of the company. The economic justification for a capital expenditures program must be based upon a long-term estimate of profits, which in turn requires projection of sales and costs of operation for a period of years.

Capital expenditures may affect operating costs over a long term of years. A poorly planned factory building erected in 1946, for example, may result in raising costs of operation for 1951 10% or 20% above what they otherwise might be. Results of unwise planning of capital expenditures are felt in subsequent years through increased depreciation, insurance, property taxes, handling costs, etc. Unless a capital expendi-

Summary and Forecast of Investment Expenditures—Approved and Contemplated

April 1, 1936 to June 30, 1937

.....Department

	APPROVED ITEMS						CONTEMPLATED ITEMS						
	Investment			Reserve for Depreciation			Group 1			Group 2			
CURRENT MONTH:	"A"	"B"	Total	"A"	"B"	Total	"A"	"B"	Total	"A"	"B"	Total	Grand Total
April, 1936	$	$	$	$	$	$	$	$	$	$	$	$	$
NEXT SIX MONTHS:													
May, 1936													
June, 1936													
July, 1936													
August, 1936													
Sept., 1936													
Oct., 1936													
Total													
TO COMPLETE QUARTER:													
Nov., 1936													
Dec., 1936													
Total													
FOLLOWING QUARTER:													
Jan., 1937													
Feb., 1937													
March, 1937													
Total													
NEXT FOLLOWING QUARTER:													
April, 1937													
May, 1937													
June, 1937													
Total													
BALANCE													
GRAND TOTAL													
Less—Current Month													
NET TOTAL FOR FORECAST													

Group 1—Will include investment expenditures considered absolutely necessary.
Group 2—Will include investment expenditures considered desirable but not absolutely necessary, but which would, if approved, show either a very satisfactory return on the investment, a material reduction of costs, or an improvement in operations.
A—Investment for replacements, renewals and betterments, which do not, however, cover an expansion of revenue which might result from price or volume. B—Investments having for their object major economies or expansion of revenue through price or volume.

FIG. 5. Summary and Forecast of Investment Expenditures

ture is recognized as a total mistake, and therefore written off against surplus in a single year, its effect on earnings is registered year after year.

Frequently, higher costs of operation may not be recognized as a result of poor planning for capital expenditures during a previous period, but may be erroneously ascribed to other causes.

Depreciation

OBJECTIVES OF DEPRECIATION PROVISION.—The functions of depreciation in financial management are to:

1. Provide a means of allocating the cost of capital assets to current costs of operation.
2. Evaluate capital assets.
3. Make financial provision for the replacement of capital assets.

Depreciation as an Allocation of the Cost of Capital Assets.—The large majority of accountants regard depreciation as an allocation of the cost of fixed capital assets over the estimated service life of the assets. For example, a plant which cost $100,000 and which has an estimated service life of 10 years would be regarded as an element in total cost of production if a single profit and loss statement covering the 10-year period were prepared. Inasmuch as annual statements of profit and loss are issued, the cost of the plant is spread over 10 years. Under the so-called straight line method of providing for depreciation, 1/10 of the cost of the plant, or $10,000, would be charged as a cost of operation each year. At the end of the first year, the balance sheet of the company would show a net value of $90,000 (after deducting the reserve for depreciation) for the plant. In the second year, another $10,000 would be charged to costs of operation and the net asset value would be reduced to $80,000. Under this concept of depreciation, undepreciated values of capital assets assume the nature of deferred costs of operation.

Depreciation and Capital Asset Valuation.—Current practice is to deduct the reserve for depreciation from the cost or other valuation of capital assets on the balance sheet. While it is common to use expressions such as "the capital assets shown on the balance sheet are worth .....," net valuations of capital assets listed on the balance sheet may bear little relation to true worth. Assets which were purchased 10 years ago and which are being depreciated over a 20-year period may be worth considerably more on a reproduction basis than the balance sheet valuations, or they may be of doubtful value because of obsolescence.

Depreciation and Replacement of Capital Assets.—For financial planning, the chief function of depreciation is usually its role in financing replacement of plant and equipment. Depreciation allowances provide, out of the operations of the business, resources for replacement of fixed assets. True, funds withheld as depreciation allowances may be devoted to other purposes such as acquiring inventory or accounts receivable, but in that event funds raised in other ways can be devoted to the acquisition of fixed, instead of current, assets.

If depreciation is regarded as a means of financing replacement of

assets, reproduction costs, especially in a period of rising prices, become far more suitable than original or historical cost as a basis for computing the annual depreciation allowance. Thus, if a plant was constructed 10 years ago at a cost of $1,000,000 and is being depreciated over a 20-year period on a straight line, the yearly depreciation allowance would be $50,000. Should a rise in prices lift the replacement cost of the plant to $2,000,000, it is evident that the depreciation reserve will be altogether insufficient to provide for the eventual replacement of the plant. Actually, the annual allowance will be only half as large as needed for replacement, and earnings will be overstated to that extent.

Depreciation allowances, in effect, constitute a conversion of fixed capital assets into cash, so that it is available for reinvestment in similar fixed assets. But where the price level changes, the sum thus realized may be too great or too little for the purpose in view. That is because depreciation as ordinarily computed is based on historical cost.

Accountants have advanced rather persuasive practical objections to the use of replacement cost in computing annual depreciation allowances. These may be paraphrased as follows:

> The function of accounting is to record costs and to allocate them to the periods to which they relate. Replacement costs of fixed assets fluctuate widely and irregularly from year to year. Allowing for technological changes, it may be impossible to estimate such cost accurately. Basing depreciation on reproduction cost would require almost continuous revision of depreciation charges from year to year. The expense involved in revising reproduction costs annually is often prohibitive.

But financial executives can be guided by reproduction costs nevertheless. The point can be illustrated by the following example:

A company makes a fortunate purchase of some machinery at exceptionally low cost. The equipment has an estimated service life of 5 years. Depreciation calculated on historical cost would result in a very low charge to current cost of operations during this 5-year period. However, replacement of this machinery at a far higher cost is inevitable at the end of the period. Obviously, depreciation based on historical cost will not provide sufficient reserves for the replacement of these machines out of current operations. But depreciation reserves can be supplemented by earnings retained in the business for this purpose, whether or not surplus is specifically earmarked.

It is not necessary as a practical matter to make continuous revisions of reproduction costs of plant and equipment. As major changes in construction costs of plant and equipment occur, reproduction values can be estimated roughly and provision made for their replacement, either through depreciation reserves or from other sources.

Capital Asset Replacement Funds.—Provision for depreciation in the earnings statement, whether based upon historical cost or reproduction value, does not of itself assure funds for the purchase of new capital assets when required. Provision for depreciation is tantamount to conversion of fixed assets into current assets. At any particular moment, however, the current assets of a business may consist of accounts receivable, inventories, or securities. Depreciation allowances limit disbursement of receipts as dividends, but do not assure they will be held in the form of cash until used for replacement of particular assets. A business may thus find it necessary to resort to outside financing to acquire

capital assets, despite adequate depreciation allowances for the purpose. Some concerns maintain a replacement fund consisting of cash or securities equal to the amount of the periodic depreciation allowances, to insure that they will have the means for financing the acquisition of new capital assets.

OBSOLESCENCE OF CAPITAL ASSETS.—Obsolescence is of two kinds—**normal obsolescence,** which is at least partially foreseeable and should therefore be included in the amount of the periodic provision for depreciation, and **extraordinary obsolescence,** which is wholly unpredictable. In providing for extraordinary obsolescence, it is good practice to establish a special reserve for this contingency out of current earnings or surplus. It is not practicable to include provision for extraordinary obsolescence in current depreciation, since there is no basis for estimating the amount needed.

MAINTENANCE VS. DEPRECIATION.—Railroads, and formerly public utilities as well, charge repairs, replacements, and retirements of capital assets to operating expenses in lieu of depreciation. At one time, it was not uncommon for industrial companies also to regard maintenance and replacement outlays as taking the place of depreciation allowances. The use of actual maintenance and replacement outlays as a substitute for depreciation allowances is unsatisfactory because of the highly irregular character of the former. In times of poor earnings, there is strong temptation to "skimp on maintenance," so as to overstate income.

Relation to Maintenance and Repairs.—Adequate maintenance and repairs of fixed assets prolong their life, but do not constitute a substitute for depreciation. As stated by Professor Hatfield in his now classic remark, "All machinery is on an irresistible march to the junk heap and its progress, while it may be delayed, cannot be prevented by repairs."

Railroads long substituted maintenance, which included current replacements of particular units of property, for depreciation. They now provide for depreciation of equipment and larger units of way and structures. The older method made easy manipulation of reported earnings by variation of maintenance outlays.

EFFECT OF DEPRECIATION ON WORKING CAPITAL.—The provision for depreciation, it has been said, tends to convert fixed capital assets into working capital to the extent that the annual allowance for depreciation exceeds the year's new capital expenditures. This can be demonstrated by a hypothetical example.

Let us assume that the balance sheet on January 1, 1948 shows:

Current Assets	$100,000	Capital Stock	$300,000
Fixed Assets	200,000		
	$300,000		$300,000

and that the results of operations for 1948, on a cash basis, are:

Sales		$100,000
Costs	$75,000	
Depreciation	25,000	
		$100,000
Profit		0

and that no investments are made in capital assets. The balance sheet on December 31, 1948 would then show:

Current Assets	$125,000	Capital Stock	$300,000
Fixed Assets (Net).....	175,000		
	$300,000		$300,000

It will thus be seen that though the income statement shows neither a gain nor a loss, the book value of fixed assets has declined $25,000 and the current assets have been increased by the same amount. As a result of the gradual conversion of fixed assets into current assets, many businesses have been able to weather periods of adversity by withholding new capital investments, so that the annual provision for depreciation has in effect been available to cover operating deficits or to provide funds for other purposes, where it has been earned.

EFFECT OF INADEQUATE DEPRECIATION.—In the above illustration, if depreciation of only $10,000 had been deducted, a profit of $15,000 would have been reported. The balance sheet on December 31, 1948 would have been as follows in that event:

Current Assets	$125,000	Capital Stock	$300,000
Fixed Assets (Net).....	190,000	Surplus	15,000
	$315,000		$315,000

If these results are repeated yearly, at the end of 8 years, when capital assets should have been fully depreciated, the balance sheet would appear as follows:

Current Assets	$300,000	Capital Stock	$300,000
Fixed Assets	120,000	Surplus	120,000
	$420,000		$420,000

It will readily be appreciated that the apparent profit of $15,000 yearly might have tempted the board of directors to declare dividends, for stockholders would expect to share the profits. Any dividends which might have been declared during this period would in reality have been distributions of capital. In any event, altogether inadequate provision would have been made for replacing assets. Furthermore, in computing costs, insufficient depreciation would have been included. If 100,000 units of the product were produced each year, for example, costs would have been understated by 15¢ per unit, or $15,000 a year, due to inadequate allowance for depreciation.

The principles involved in the above simple case are equally valid in large enterprises with multiple products and earnings varying widely from year to year.

DEPRECIATION A COST OF OPERATION.—It is sometimes suggested that the periodic depreciation allowance is merely a "book" charge against earnings not at all comparable to other expenses of operation. But this is true in any sense only where there is no need for replacing fixed assets for an indefinite period in the future. Otherwise, depreciation is an actual cost of doing business, just like wages, materials or insurance. Where depreciation is based upon historical cost, it is an allocation of part of the original investment in fixed assets to the current period. Depreciation based upon the expected cost of replacement of capital assets recognizes the fact that, in the conduct of

business, replacement of capital assets is inevitable and provision should be made for it in advance. Failure to provide for depreciation adequately understates cost just as surely as failure to include any other expense incurred during the accounting period.

IMPACT OF CHANGING PRICE LEVELS UPON DEPRECIATION.—During a period of advancing prices, a corporation faces the necessity of planning for the replacement of capital assets at a cost considerably in excess of original or historic cost of the acquisition. Thus, a plant constructed in 1932 might not be replaceable in 1948 for less than twice its original cost. Depreciation based on original cost would not be sufficient to safeguard the integrity of the company's capital in that case, and part of the profit reported should be considered earmarked for replacement of assets as required.

Conversely, in a period of low prices, replacement is usually far below original cost. In the 30's, when the price level had declined sharply, numerous concerns wrote down the book value of fixed assets, charging the write-downs against surplus. The primary motive usually was to reduce the annual depreciation charge, thereby increasing reported profits or decreasing operating losses. Such asset write-downs in effect adjust the annual depreciation to a lower expected replacement cost. If reproduction cost of fixed assets should rise again, depreciation deductions become inadequate and earnings are, in effect, overstated.

From the financial point of view, there is good reason to reflect what appears to be a **lasting change in the price level,** and hence in reproduction cost, in asset valuations on the balance sheet. For ideal planning, depreciation rates should be adjusted to changes in the cost of replacement of capital assets. But balance sheet valuations of capital assets and depreciation rates should be changed only when the change in reproduction costs appears lasting, as was the case in the 30's. Even in that case, provision for depreciation at reduced rates proved inadequate where assets had to be replaced at much higher cost in the 40's.

As a practical matter, asset write-downs are far and away more common than write-ups. The facts that write-ups are frowned upon by accountants and many states prohibit the payment of dividends out of unrealized appreciation of assets discourage upward revaluations of assets.

FULLY AMORTIZED EMERGENCY FACILITIES.—During World War II, property for which a **certificate of necessity** had been issued by the government could be amortized for tax purposes within 5 years or, at the option of the owner, by September 29, 1945. Most assets covered by wartime certificates of necessity were written off entirely or mainly, even though they are still in use. Failure to set aside current depreciation for such assets, however, results in overstatement of earnings and lack of provision for replacement of these assets when they are retired. The Committee on Accounting Procedure of the American Institute of Accountants favors restatement of accumulated depreciation previously recorded so as to reallocate a portion of the cost of such emergency facilities against future operations and revenues. Needless to say, such reallocation of depreciation will not affect the income tax liability of the business. Discussing the basis on which the reallocation of accumulated depreciation shall take place, the Committee said:

In the determination of the usefulness and worth of such facilities it will be necessary to consider their adaptability to peacetime use, the effect of their use upon effective utilization of other facilities, the possibilities of an inflated initial cost, and the fact that no tax deductions for amortization or depreciation will be allowable in future years. Consideration of these factors, the committee believes, will usually result in the determination of a carrying value for emergency facilities less than the cost of the facility reduced by the depreciation that would have been appropriate had no certificate of necessity been involved.

METHODS OF CALCULATING DEPRECIATION.—Fixed asset values can be charged off to current cost of operation by various methods. The choice of method for calculating the periodic depreciation allowance has important financial consequences, since the amount deducted directly affects the size of the profit reported. Furthermore, where the provision for depreciation exceeds actual current expenditures for capital assets, it results in an addition to working capital. Conversely, if current provision for depreciation is less than the outlay for fixed assets, additional funds must be drawn from working capital, retained profits or outside sources. Depreciation policies thus affect planning for both fixed and working capital requirements.

Depreciation methods applicable to particular assets should take into account probable replacement requirements. For instance, assets subject to sudden obsolescence should be written off rapidly in the first few years of their productive life. The straight line method of providing for depreciation under such circumstance might prove inadequate, for the asset may have to be retired long before it has been written off.

Straight Line Method.—The straight line method is by far the most common. The basic theory behind it is that depreciation is a function of time, and that its amount is uniform with the passage of time. Thus, a fixed asset with an estimated life of 10 years would be depreciated 1/10 yearly or 1/120 each month. This is usually expressed as an annual rate, e.g., 10% per annum. The expression "a 10% rate of depreciation" means that the service life of the asset is assumed to be 10 years.

The straight line method of depreciation has a number of advantages which account for its great popularity. It is simple to apply and easy to calculate. A great volume of data has been assembled regarding straight line rates applicable to specific types of assets. The Bureau of Internal Revenue, while accepting any logical method of calculating depreciation that is used consistently by the taxpayer, has appeared to favor the straight line method as do utility regulatory commissions and the Interstate Commerce Commission. Because obsolescence and other factors entering into depreciation cannot be measured with any accuracy, the straight line method is usually considered to give about as accurate a result as any. Some flexibility can be secured, furthermore, since the annual depreciation rate can be changed to reflect a revision of the estimated service life of the asset or obsolescence beyond that originally estimated.

One criticism made of the straight line method is that resale value of an asset often depreciates more rapidly in the early part of its life. But since a primary financial objective of depreciation is to provide resources for eventual replacement of fixed assets, resale value is not a pertinent consideration. A more valid criticism from the finan-

cial viewpoint is that maintenance and repair outlays are greater in the later years of the asset's life, so that the total charge against earnings for both depreciation and maintenance actually tends to increase under the straight line method.

The most effective criticism of the straight line method, however, is that wear and tear on assets is greatly intensified during periods of capacity production, while the large earnings of such periods are not charged proportionately on account of depreciation. At such times, also, repairs may be deferred because of a desire to operate equipment without interruption, or a lack of labor and materials for the purpose. If taxes on income are higher during this period of intensive operation, as was the case during World War II, the result may be quite inequitable to the taxpayer. The attitude of the Treasury Department at that time was, however, that Congress had recognized this and other factors tending to exaggerate taxable income in the carry-back provisions of the revenue law, and therefore it was loath to allow accelerated depreciation due to added wear and tear on assets. On the renegotiation of war contracts, however, additional depreciation on machinery was allowed because of double-shift operation and other special circumstances. Needless to say, there is nothing to prevent corporate managements from deducting additional depreciation, or setting aside a reserve otherwise designated, from earnings after taxes to make additional financial provision for asset replacement.

Interest Method.—Funds set aside for depreciation will not be used for a long time to replace assets. In the meantime, they are ordinarily used to acquire other assets, and so contribute to the earnings of the business. If allowance is made for this by adding interest to the depreciation reserve the total sum accumulated under the straight line method will exceed the cost of the asset to be replaced.

Under the interest method of calculating depreciation, a lower annual rate is set. Interest on the accumulated depreciation reserve is then added to the amount of the annual deduction, which thus increases from year to year.

A practical objection that has been advanced against this method is that the total provision for depreciation becomes greater during the later years of the life of the asset, when maintenance and repair costs also are larger, so that earnings are reduced unduly at that time.

Depreciation Based on Production.—Depreciation may be based on the number of units produced, machine working hours or orders received for the products of a particular class of machinery. Where this is done, the object is to correlate depreciation, as a cost of production, with the volume of production. This method ties depreciation very closely to wear and tear, but overlooks such other factors as the action of the elements and obsolescence, so that the aggregate provision may prove inadequate. This will be so particularly if the machinery is idle during considerable periods for lack of orders.

Where depreciation rates are based on production, the effect tends to be to stabilize reported earnings, since deductions will be largest when output is at a high level.

Reducing Balance Method.—This method provides for heavier depreciation deductions in the early years of the life of the asset. Dur-

ing the initial period of its life, the usefulness of the asset to the enterprise is most certain, it is likely to be most productive, the obsolescence element is smallest and maintenance requirements are at a minimum. In a period of high prices, this procedure permits a writing down of the book value of the asset at a rapid rate to reflect the expected early decline in replacement cost, so that in later years income will not be burdened by an unduly heavy charge for depreciation. Interest in this method increased in the era of high prices after World War II for this reason.

The Bureau of Internal Revenue (Bulletin F) has stated that "its best application is to those accounts for property in which the greater proportion of the production is confined to the early part of the useful life."

Objection has been raised chiefly to the complexity of this method. The rate of depreciation is applied not to the original cost of the asset, but to the depreciated cost remaining on the books for each year. Furthermore, there will be an undepreciated balance of value at the end of the estimated life of the asset, since the depreciation rate always applies to the remaining valuation after deducting prior depreciation allowances. This is objectionable where the asset does not have substantial final resale value.

Depreciation Based on Sales or Profits.—Where management is interested primarily in stabilizing earnings as reported, depreciation in reports to stockholders may be based upon sales or profits. Such a basis will not be acceptable for tax purposes, so that depreciation will have to be calculated on some other basis in the tax return of the business.

One objection to this procedure is that, should a succession of years of small sales or profits occur, the provision for depreciation will be inadequate and costs will be understated. Another is that management may arbitrarily manipulate the annual deduction to make a good or bad showing as desired. Where a business is relatively stable, as in the public utility field, deduction of depreciation as a uniform percentage of gross revenues may give satisfactory results over a period.

Writing Off Assets on Acquisition.—In a few cases in this country, and more commonly abroad, the cost of fixed assets has been written off on or shortly after acquisition as a current expense of the business. In such cases, they are carried on the books at a nominal sum, such as $1.

On the surface, this may seem like conservative procedure. Actually, it is the reverse. With the assets written off, there is no charge to earnings on account of depreciation. Therefore, current earnings are overstated and excessive dividends may be paid out. This method is less misleading, though not desirable, where a business must acquire new fixed assets yearly at a fairly regular rate, so that the writing off of assets acquired may give a result similar to more conventional methods of computing depreciation.

Financial Effects of Depreciation Policies.—Failure to provide adequate depreciation results in understatement of the value of fixed assets and overstatement of current profits. Conversely, too large a provision for depreciation understates current profits and creates secret reserves

on the balance sheet in the form of unduly low fixed asset valuations. But in many instances companies which sought to overstate depreciation in order to create secret reserves have found in time that depreciation has actually been greater than allowed for because of obsolescence, a higher price level, or other unlooked-for developments.

The earnings statement and balance sheet will also be affected by the method used to account for retirement of particular assets. Where each fixed asset has its own individual depreciation reserve, retirement before the end of its estimated useful life will require a charge to current earnings or surplus equal to the undepreciated balance of the asset's value. This may mean heavy charges of the kind from time to time. On the other hand, where the depreciation provision is carried as a single reserve against all the fixed assets, this reserve is charged with the original book value of each asset as it is retired and current earnings or surplus are not affected by retirements. The railroads at one time accounted separately for each asset for which a depreciation reserve was accumulated, but now include depreciation deductions in a single reserve against which retirements are charged. This latter practice, it is found, encourages replacement of assets because management is not encouraged to retain obsolete assets that are costly to operate because of an unwillingness to have earnings charged with heavy deductions on account of retirement of assets not fully depreciated on the books.

In all industries, more rapid depreciation of fixed assets tends to encourage replacements because there is then no problem of charging off undepreciated balances of asset values against earnings or surplus.

APPRECIATION AND DEPRECIATION.—The view is sometimes advanced that appreciation of assets may offset depreciation, making the latter unnecessary. This contention has been put forth in connection with controversies over whether a surplus exists for dividend payments. Whatever merit this argument may have for some purposes, it is not pertinent to fixed asset administration. All fixed assets, with the exception of land, ultimately decline in value until retirement and replacement. Appreciation in value of plant, equipment, or other fixed assets is an unrealized gain which may vanish at any time, and in any event will ultimately disappear due to wear and tear, obsolescence, etc.

From the viewpoint of financial management, a primary purpose of depreciation is to provide for the replacement of fixed assets as it becomes necessary or desirable. This calls for adequate allowance for depreciation. Any appreciation in asset values is pertinent to the problem only because it makes necessary additional provision for replacement. This added provision may take the form of a higher annual rate of depreciation or the application of reinvested earnings for the purpose.

DEPRECIATION REGULATION.—Government departments and agencies have had a profound effect upon depreciation policies. The Bureau of Internal Revenue, in passing on depreciation deductions claimed by taxpayers, has had the widest influence. The statute provides that "A reasonable allowance for the exhaustion, wear and tear of property used in the trade or business, including a reasonable allowance for obsolescence" may be deducted in computing net taxable

income. But the burden of proof of the reasonableness of the deduction in each case rests upon the taxpayer. The Bureau requires a method of depreciation, once adopted, to be pursued consistently, except where a change receives specific permission from the Commissioner. Bulletin F specifies the average service life of various types of assets, to indicate acceptable rates. However, a measure of flexibility is allowed the taxpayer in setting the service life upon which depreciation will be based, provided justification can be advanced for deviations from the average.

Depreciation also enters into the measurement of differences in cost of manufacture, sale, and delivery under the Robinson-Patman Act, to justify price differentials under that law forbidding price discriminations except where they are based on actual differences in cost (or to meet competition).

The Interstate Commerce Commission, in its regulation of the accounts of railroads and interstate communications companies, has had to pass on depreciation policies. The I.C.C. has been inclined to give a large measure of leeway to companies subject to its regulation, so that the railroad industry still uses current maintenance, rather than depreciation, as the basis for a large part of its fixed asset management.

In the public utility industry, on the other hand, depreciation has played a key role in regulation. The Federal Power Commission and the major state regulatory commissions have required regular depreciation of fixed assets over their estimated service life, in place of the replacement and retirement policies common in the past. The regulatory commissions have insisted upon the regular accrual of adequate depreciation so that valuation of property for rate-making purposes will fully reflect accrued depreciation. The amount of the annual depreciation provision is deducted from earnings to measure the rate of return on the rate base. In addition, public utility companies under the jurisdiction of the Federal Power Commission have been required by that body to write down the book value of assets, where they had been written up in the past over original cost, by charges against earnings and surplus.

Management must thus keep in mind tax and regulatory considerations, as well as the requirements of financial policy, in formulating depreciation practices.

Depletion of Wasting Assets

THE DEPLETION PROBLEM.—Natural resources that are used up in current operations create a special problem in fixed capital management. A mine or an oil field cannot be replaced, as can a factory or a piece of machinery. When the ore, oil, or other raw material has been extracted, the asset has been depleted and the company must exploit some other mine or field if it is to remain in the business. Hence, part of the earnings from the operation of a wasting asset constitutes a return of the capital invested. This portion is designated as depletion.

FINANCIAL SIGNIFICANCE OF DEPLETION.—Capital expended to acquire a wasting asset is used, in essence, to acquire by a bulk purchase a large stock of raw material. Through the extraction

process, this raw material is then converted into a salable commodity, which may be ore or crude oil or may be a more highly finished product that has been subjected to further processing. Hence, a pro-rata portion of the cost of the natural resource constitutes an expense of doing business just as surely as does the cost of raw material in any manufacturing enterprise. But this cost takes the form of a current charge for depletion, rather than the purchase of raw materials from others.

T. J. Hoover (Economics of Mining) has said:

A mine is a wasting asset, the capital value of which will in time be reduced to zero. The ore is depleted by every ton extracted, and the salvage value of plant and equipment is negligible—seldom sufficient, in fact, to pay for transporting materials and machinery elsewhere. The wise investor expects that his capital outlay will be repaid to him during the life of the mine; and any financial program for a mining business must allow for the redemption of this capital during that period, which may often be no longer than five or ten years.

While it is true that depletion is a cost of production of the company exploiting a wasting asset, this does not mean that a natural resource already acquired should not be worked because the sale of the product will not return all costs, including depletion. Since capital has already been invested in the asset, the chief criterion in deciding whether to work it should be whether it yields a margin over actual costs of extraction, refining and transportation. On the other hand, before a wasting asset is acquired the buyer will want to ascertain whether it promises to yield a profit over all cost, including depletion and interest on the capital that will be tied up in the mine, timber land, or other wasting asset.

VALUATION OF WASTING ASSETS.—Depletion cannot be computed until the wasting asset has been given a valuation which will provide a basis for calculating the amount to be deducted from earnings. This valuation may be the cost, with or without preliminary development expenses, or it may be some other amount at which the asset will be carried on the books.

Valuation of a wasting asset is often a very difficult matter. The Internal Revenue Code provisions governing valuation acceptable for tax purposes are complex. Broadly, they provide that a natural resource acquired prior to March 1, 1913 can be valued at cost or fair market value at that date, whichever is higher. Most wasting assets acquired after March 1, 1913 are valued at cost, as for computing gains on capital assets sold. In certain instances, notably mines other than coal, metal, and sulphur mines, **discovery value** may be used. This is the fair market value either on the date of discovery or within 30 days thereafter. A complication arises when the mine, oil property, or other wasting asset has been acquired through the issuance of stock, which may be of no par value or with a par or stated value far in excess of the amount that would have been paid for the property had it been purchased for cash. Preliminary development costs of mines should be capitalized, but they may be deducted as expenses when made for oil and gas wells, at the taxpayer's option, for income tax purposes.

Since the wasting asset often has an arbitrary valuation set for tax purposes or to cover stock issued in payment, the annual depletion charge similarly may not reflect in any real sense the loss in value of

the asset, or the diminution of the worth of the stockholders' investment. Depletion is a real element of cost, but practical valuation difficulties may make its accurate determination impractical.

METHODS OF CALCULATING DEPLETION.—Whatever the basis used in setting a valuation for a wasting asset, the charge per unit of product is based in most cases upon the estimated recoverable content of the mine, oil field, timber stand, or other wasting asset. This content is fixed in a literal sense, but as a practical matter it may vary greatly through the years with technological changes, improved methods of extraction, and efficiency of operation. Engineers can do little more than hazard a "scientific guess" as to the total amount of the product that can be extracted economically. In the case of mines and other underground resources in particular, quite limited information is usually on hand as extraction starts, but as it proceeds more becomes known about the probable extent of the ultimate recovery. In the light of this additional information, the basis for calculating the depletion charge per unit of product may be changed. For timber lands that are being replanted as trees are cut down, allowance must be made for the resulting prolongation of the life of the asset.

Revision of the unit charge for depletion may radically change the reported earnings of an enterprise. Thus, if the company has invested $1,000,000 in a mine on the assumption that 2,000,000 tons of ore could be extracted from it economically, the depletion charge against earnings would be 50¢ per ton of output. If the company receives $5 per ton and all operating costs aggregate $3 a ton, a profit after depletion of $1.50 a ton is realized. Should it be found shortly after operations begin that the recoverable content of the mine is actually only 1,000,000 tons, the depletion charge should be revised upward to $1 a ton, which would reduce the taxable profit to $1. This is not only necessary for accurate financial reporting, but also to avoid overpayment of income taxes upon earnings after allowable depletion.

For income tax purposes, depletion is allowed only on units actually sold, regardless of when they have been extracted.

Percentage Depletion.—The Internal Revenue Code permits taxpayers to deduct depletion for certain wasting assets as a percentage of gross income from the property, instead of per unit of product. Depletion of oil and gas wells is deductible at the rate of 27½% of the gross income from the property for the taxable year, but it may not exceed 50% of the net income of the taxpayer from the property, without allowing for depletion. Owners of oil and gas wells use percentage depletion, unless depletion per unit of product will give them a larger deduction from taxable income. Percentage depletion is allowed owners of other wasting assets at their option. The rate is 5% of gross income from the property for coal mines, 15% for metal mines, and 23% for sulphur mines, with the same limit of 50% of net income from the property computed without allowance for depletion.

The fact that the taxpayer may deduct more than 100% under the percentage depletion method has attracted criticism of this procedure. Actually, it reflects the fact that large sums are spent upon the development of natural resources which do not result in finding recoverable products, so that the added tax benefit of percentage depletion from

the successful property will offset the other failures that inevitably occur.

Depletion and Financial Reporting.—Because of the wide discrepancy between book and actual values of wasting assets, it has been suggested that managements should compute depletion in statements to stockholders on the basis of engineering data, or that wasting assets be carried at $1 and no pretense at evaluation and depletion for financial reporting purposes be made. A number of companies do not show depletion in their report to stockholders. Maurice E. Peloubet, who made a study of depletion practices in nonferrous metal mining, reported his findings as follows (Harvard Bus. Rev., vol. 16):

In order to arrive at a statement of practice in the industry, the reports for the year 1936 of all companies engaged in mining nonferrous metals listed on the New York Stock Exchange or the New York Curb Exchange were examined. For various reasons certain companies were eliminated. Some were too small to be representative, others were in partial liquidation, and, in a few cases, the information available was insufficient. Forty-one companies, however, were finally selected as being fairly representative of the non-ferrous metals industry, and the annual reports of these companies to the Securities and Exchange Commission were studied in detail. Of these companies, 13 showed no depletion at all; 24 showed depletion on either the basis used for federal income tax purposes or some other basis; and 4 gave no indication of the method used for charging depletion. The production represented by the 13 companies which did not show depletion in their accounts is larger than that of the remaining companies.

Peloubet found no uniform or consistent practice in making the charge for depletion. Of 24 companies showing depletion in some form, 13 made the charge entirely to income, 6 entirely to surplus, and 5 divided the charge between income and a surplus account. Comparing market prices of the stocks of companies which did not recognize depletion in their accounts with those which did, Peloubet reached the conclusion that investors give little, if any, consideration to financial deductions for depletion in the published accounts of nonferrous metal mining companies.

SECTION 19

DIVIDENDS AND SURPLUS

CONTENTS

PAGE

Factors Affecting Dividend Policy

Disposal of net income 781
Sources of capital 781
Dividend defined 782
Surplus defined 782

Legal Restrictions Upon Dividends

Reasons for limitation 782
Common law rules 783
Statutory law 783
Prohibition of capital impairment... 783
Dividends from surplus 784
The net profits test 785
The insolvency rule 786
Other restrictions 786
Judicial compulsion to pay dividends 786
Dividend a debt to stockholders 787
Remedies for improper dividends 787
Dividend restrictions on foreign corporations 788

Tax Aspects of Dividend Policy

Surtax on reinvested earnings 788
Dividends and stockholders' taxes... 789

Financial Considerations in Dividend Declarations

Working capital position 790
New capital requirements 790
Specific objectives 790

Form of Dividends

Cash dividends 791
Stock dividends 791
Purpose of stock dividend 791
Taxability of stock dividends..... 792
Listing stock dividends 793
Stock dividends and financial statements 793
Rescission of stock dividends 795
Bond dividends 795
Scrip dividends 795
Property dividends 795

Designation of Dividends

Regular dividends 796
Extra dividends 796
Special and irregular dividends 796

PAGE

Interim and final dividends 797
Liquidating or capital dividends 797

Types of Dividend Policy

Dividend policies 797
Regular dividend policy 797
No dividend policy 798
Regular and extra dividend policy 798
Regular plus stock dividend policy 798
Irregular dividend policy 798
Regular stock dividend policy 798
Property dividend policy 798
Dividend policies in wasting asset industries 799

Mechanics of Declaration and Payment

Resolution of the board 799
Stock dividend declarations 801
Date of record 801
Notice to stockholders 802
Typical dividend notices in newspapers (*f.* 1) 802
Folder accompanying dividend checks (*f.* 2) 803-804
Preparation of dividend checks 802
Dividend mail order 803
Dividend book 805
Form of record for dividend checks delivered at company's office (*f.* 3) 806
Special bank account and payment through fiscal agent 805
Form of record for dividend checks sent by mail (*f.* 4)..... 806

Source and Character of Surplus

Earned surplus 807
Unappropriated or free surplus 807
Capital surplus 807
Surplus from gifts of assets 808
Surplus from sale of stock 808
Par stock at premium 808
No-par stock 808
Surplus from donation of stock 809
Surplus from profit on repurchased stock 809
Stock assessments as source of surplus 810
Surplus due to cancellation of indebtedness 810

PAGE
Forfeited subscriptions giving rise to surplus 810
Surplus due to reduction of capital stock 810
Surplus from unrealized appreciation 812
Surplus of a merged company 813
Surplus in consolidation 813
Surplus of holding company 813
Surplus in reorganization of solvent corporation 814
Surplus in reorganization of insolvent concerns 815

Purposes of Surplus

Purposes of capital surplus 815
Uses of earned surplus 816
Surplus as a source of capital 816
Rapidity of capital turnover 816
Cost of expansion required 816
Demands of stockholders for dividends 816
Policy of contraction 816
Credit conditions 816
Conservatism of management 816
Absorption of losses through surplus 817
Writing off inflated assets against surplus 817
Inaccurate accounting estimates..... 817

Reservations and Appropriations of Surplus

Nature of the appropriation 818
Purpose of surplus reserves 818
Surplus reserves distinguished 818
Final disposition of surplus reserves. 819
Objects of appropriations—reserve for contingencies 819
Sinking fund reserves 820
Reserve for additions, betterments, or improvements 820
Reserve for insurance 821
Reserves against inventory declines.. 821
Reserves against increased depreciation 821
Reserve against other losses 821
Directors' power to establish reserves 822

Surplus Adjustments for Extraordinary Profits and Losses

Ordinary operations 822
Extraordinary gains or losses 822
Adjustments made by directors 823

Improper Surplus Policies

Secret reserves 823
Undervaluation of assets 823
Overstatement of liabilities 823
Omnibus reserves 823
Transfer to surplus 823
Overstated surplus 824
Overvaluation of assets or undervaluation of liabilities 824
Common methods of overstatement 824
Overvaluation of assets can be corrected by appraisal 824

Capital Deficits

How deficit arises 824
Showing deficit on balance sheet 825
On assets side 825
On equities side 825
How to eliminate a deficit 825
Accumulation of earnings 825
Reduction of capital 825
Remission of debts and stock donations 826
Repurchase by a corporation of its bonds or stock at a discount from face or capital value 826
Assessments 826

SECTION 19

DIVIDENDS AND SURPLUS

Factors Affecting Dividend Policy

DISPOSAL OF NET INCOME.—The management of a business can do three things with its net income. Income may be distributed in part or whole to the owners of the business. Secondly, earnings may be retained in the business for any use the management may decide on in the future. Thirdly, income may be retained for one or more specific purposes, and designated as reserves for these ends.

The disposal of net income in these three ways will be governed by many considerations. The first consideration is necessarily the legal right of the corporation to distribute net income. Corporation laws of all the states limit dividend payments by corporations, and even without statutory restrictions there are common law limitations upon dividend declarations. In the second place, the distribution of income to the owners of a business is influenced by the tax consequences, both to the enterprise and to the owners personally. A third factor affecting dividend distributions is the working capital position of a corporation, for it would obviously be short-sighted to pay dividends where the effect is to undermine the financial strength of the enterprise and even to threaten its future solvency. A fourth basic consideration is the long-term capital requirements of the business and the availability of other sources of funds for expansion. Fifth, corporations may have specific objectives in view, such as merger with another business, that would be furthered by liberal dividend distributions that would make their stocks more attractive if offered in exchange for the shares of other businesses, and the desire to achieve such a purpose may offset other considerations in shaping dividend policy.

It is sound practice to formulate dividend policy on a long-term basis, because important advantages can be derived from a consistent dividend record. The American Telephone & Telegraph Co., by maintaining a stable but liberal dividend policy over a long period of years, has been able to achieve wider distribution for its stock than has any other enterprise. This has greatly facilitated new financing, has promoted favorable relations with stockholders and the public generally, and has played an important part in the remarkable success of the enterprise.

SOURCES OF CAPITAL.—Every enterprise can secure new capital through the reinvestment of its earnings or from outside sources. The larger the proportion of earnings distributed to stockholders as dividends, the more the company must look to outside sources for funds. At the same time, however, liberal dividends facilitate the sale of new stock, and so make it easier to secure capital from outside sources.

Many corporations, such as the Aluminum Co. of America, have relied heavily upon reinvested earnings for new capital, and have distributed only a small part of earnings realized over a period of years as dividends. Others, like American Telephone & Telegraph Co., have distributed the bulk of their earnings to stockholders, thereby making far easier the sale of new shares and convertible bonds. These two instances typify opposite policies, most enterprises pursuing a course that falls somewhere between these two extremes.

DIVIDEND DEFINED.—A dividend, broadly defined, is any distribution of cash or property to corporate stockholders. Most frequently, a dividend refers to a distribution made out of earnings, current or accumulated. But a return of capital to stockholders is designated a liquidating dividend, and in some cases merely a dividend. Some corporations, particularly those engaged in mining or other wasting asset industries, regularly distribute dividends derived in part from earnings and in part from capital.

SURPLUS DEFINED.—The surplus of a corporation is the excess of the book value of the assets over the sum of the liabilities and the par or stated value of the capital stock. Because legal restrictions applicable to the impairment of capital do not apply to surplus, a substantial surplus accords a larger measure of flexibility to corporate management in the formulation of financial policies. For this reason, many managements seek to create a large surplus where one does not exist, or where the surplus has been impaired through operating losses or asset write-downs. The prevailing trend towards the use of low-par value stock in corporate capitalization reflects this desire to secure a substantial surplus. In the case of banks and insurance companies, separate surplus and undivided profits accounts are maintained, surplus being considered the more permanent and stable account. Since impairment of the capital of a moneyed institution could lead to its closing and forced liquidation, the surplus of such a corporation is a buffer to protect the capital account from impairment due to losses or asset write-downs.

Legal Restrictions Upon Dividends

REASONS FOR LIMITATION.—The primary reason for restricting dividend declarations by corporations is the protection of creditors. The greatest privilege accorded corporations by law is the limitation of the liability of stockholders. In return for this privilege, the courts have sought to protect the capital of the corporation, as originally constituted, from deliberate impairment by dividend distributions or by purchases of its own stock by a corporation. It is one thing for a corporation to amend its charter to reduce the par or stated value of its capital, and to distribute the amount of such capital reduction as a liquidating dividend. But when dividends are paid out of capital without charter amendment, creditors who rely upon the stated capital of the business in granting credit to the enterprise may, in effect, be defrauded.

A second reason for legal limitations upon dividend distributions is the protection of the stockholders of the enterprise. The payment of

dividends out of capital may mislead stockholders. Dividends that are in fact a return of capital constitute misrepresentation, if not specifically described as such, because they cause persons to pay excessive prices for the shares. Subsequently, when they learn that dividends cannot be maintained because they were actually a return of capital, the market price of the shares will decline and large losses may be incurred.

COMMON LAW RULES.—Even apart from state corporation laws that restrict dividend payments, the courts have held that there are basic common law rules limiting the payment of dividends. As long ago as 1824, the United States Supreme Court, in the leading case of Wood v. Dummer, held that dividends could not be paid out of capital until all creditors had been satisfied. The court in this case went so far as to say that the capital of the corporation is "like a trust fund" for the benefit of creditors, but legal writers have since felt that this **trust fund doctrine**, as it is called, goes too far in describing the legal status of corporate capital. Other equity cases have ruled that dividends should be paid only from the profits of a business.

Where state laws impose specific legal restrictions upon corporate dividend payments, these take the place of common law precedents. However, because dividend statutes are often brief and general in character, so that they do not provide an adequate guide for the determination of whether dividends can be paid in many cases, courts still refer to equity cases in deciding litigation concerning dividends.

STATUTORY LAW.—Dividend law of individual states is modified from time to time by statutory amendment or court decisions. References to particular states are as of the date of writing. It is important to ascertain that no change has occurred before acting on such information. There is a great diversity of dividend provisions in state corporation laws. These statutory provisions lay down one or more tests to determine the legality of a dividend declaration. The four tests found in state laws are:

1. Prohibition of capital impairment.
2. Payments only out of surplus.
3. Payments only out of net profits.
4. Prohibition of payments while insolvent, or which render the corporation insolvent.

PROHIBITION OF CAPITAL IMPAIRMENT.—The oldest statutory limitation upon dividend declarations, and one that is found in the common law, is a prohibition of dividend payments that impair capital. New York, Maryland, Kentucky, Colorado, and Montana are some of the states whose laws forbid dividends that impair capital.

Application of a provision prohibiting capital impairment requires a definition of "capital." Court decisions have laid down three such definitions:

1. The par or stated value of capital stock, regardless of whether shares were issued for more or less than such par or stated value.
2. The actual dollar consideration received from the sale of capital stock, which in many cases among older corporations was substantially less than the par or stated value. A leading case using this definition of capital is Goodnow v. American Writing Paper Co., 73 N. J. Eq. 692.

3. The capital at the beginning of the accounting period in which dividends are paid. This would mean that the amount of the capital to be kept intact may be reduced by preceding operating losses or write-downs of assets.

As a practical matter, a legal provision prohibiting the impairment of capital is similar to one requiring that dividends shall be paid only out of surplus. However, where capital is defined as the actual dollar consideration received, it is possible that the balance sheet will show no surplus, but nevertheless a dividend declaration may be regarded as not impairing capital, and therefore is permissible under the law of that particular state.

DIVIDENDS FROM SURPLUS.—A majority of state laws now limit dividend declarations to payments out of the surplus of a corporation. Delaware, Georgia, Arkansas, California, and Florida specify the alternative that dividends may be paid out of surplus or net profits. On the other hand, Pennsylvania, Ohio, Louisiana, and Washington make surplus the sole test in determining whether a dividend may be paid.

Application of a legal provision restricting dividend payments to distributions out of surplus raises the question of how "surplus" is to be defined. Needless to say, the courts do not accept the corporation's balance sheet unquestioningly. Rather, they insist that the books of the corporation shall conform to legal precedents establishing acceptable accounting practices, and where this is not so a book surplus will not be recognized by the courts.

The amount of surplus that a corporation will have for the payment of dividends will be influenced largely by the basis used in the valuation of its assets. It has been held that reasonable reserves for bad debts should be established in the valuation of accounts receivable. Inventories are generally carried at cost or market, whichever is lower, but there is no indication that the courts will hesitate to accept the last-in first-out basis for inventory valuation where it is used with the approval of the Bureau of Internal Revenue. Marketable securities held by a corporation should be carried at current market quotations in determining whether a surplus is available, it has generally been held. This means that investment companies must use quotations prevailing for securities owned on the date when the dividend is declared, rather than original cost or some other basis, in determining whether a surplus exists for dividend distributions. Fixed assets are normally valued at cost less depreciation, unless cost was not determined by transactions at arm's length. The inclusion of goodwill among the assets of a corporation to determine the existence of a surplus has been sanctioned by the courts when goodwill has been acquired by purchase, merger, or consolidation.

Most state laws provide that no allowance need be made for **depletion of wasting assets** in determining the existence of a surplus available for dividends, unless the dividend payment reduces remaining assets below the amount of debts and any asset preference possessed by outstanding preferred stock. Illinois and California statutes provide that treasury stock shall not be included among assets in determining the existence of a surplus available for dividend declarations.

A New York case has laid down the thesis that the directors of a corporation are charged with making an up-to-date valuation of the assets of a corporation on the occasion of each dividend declaration. In this case (Randall, Trustee, v. Bailey, et al., 288 N. Y. 280, affirming 262 App. Div. 844) the court ruled, interpreting the provision of the New York law prohibiting the declaration of a dividend unless the value of corporate assets remaining after the payment "shall be at least equal to the aggregate amount of its debts and liabilities, including capital," that:

> In determining whether a corporate surplus exists from which cash dividends may be paid to stockholders, unrealized appreciation in value of fixed assets held for use in carrying on a corporate enterprise may be taken into consideration by the directors of the corporation.

This rule imposes an impractical burden upon corporate managements, and it is doubtful that it will be followed by the courts of other states. While directors were exonerated in a case involving the Bush Terminal Co. by the application of this rule, its application could prove quite embarrassing to managements in a period when the price level is low, so that fixed asset valuations on balance sheets are substantially below current values.

May dividends be paid from paid-in surplus, surplus resulting from a reduction of capital through charter amendment, or other forms of capital surplus? The laws of some states, such as California, Pennsylvania, Illinois, and Michigan, specifically limit the use of capital surplus to dividend declarations on preferred stock or for stock dividends. The laws of Maine and Indiana permit dividends from paid-in surplus and surplus resulting from capital reductions.

Where operating losses have wiped out surplus and a deficit exists, dividends may have to be delayed for years while this deficit is being wiped out and a new surplus is built up. To avoid this long delay, a deficit may be eliminated by a reduction of capital through charter amendment, the amount of such capital reduction being credited to the surplus account, or by an upward revaluation of assets. Even where the surplus so created may not be available for dividend declarations, future earnings can ordinarily be distributed as dividends because the profit and loss deficit has been eradicated by these steps.

THE NET PROFITS TEST.—A number of states permit dividends to be declared out of net profits of the current or prior fiscal years, even where there is no balance sheet surplus. The Delaware law provides that if there are no net assets in excess of capital stock, dividends may nevertheless be paid out of net profits of the current or preceding fiscal year. The statutes of New Jersey, Texas, Georgia, and Florida contain similar provisions. California provides that dividends may be paid either out of earned surplus or, if the capital has become impaired, out of current earnings. The Maine statute authorizes dividends out of profits, but not if the effect is to impair capital.

The net profits test corresponds to British dividend law. There, it has been held that "capital sunk and gone" need not be made good out of profits before dividends may be declared. The effect of the net profits test is to permit a corporation whose capital may have become impaired through a long period of deficit operation to resume dividends when

earnings are being realized once again, without having to make good the capital impairment first out of such profits or otherwise.

THE INSOLVENCY RULE.—A fourth common statutory provision that is found in connection with other dividend tests is that a corporation shall not pay a dividend while insolvent, or where the payment will cause insolvency. Massachusetts, California, Ohio, and Illinois have insolvency provisions in their dividend statutes. Equity courts would probably apply the insolvency rule where the statute does not do so, on the ground that the payment of a dividend while a corporation is insolvent, or which causes insolvency, is a fraudulent conveyance.

Application of this test involves a definition of the term "insolvency." In California, the term is used either in the bankruptcy sense, which means that assets do not suffice to cover liabilities other than capital, or in the equity sense, i.e., that the corporation is unable to meet its debts as they mature. In Ohio and Massachusetts, the term is used specifically in the equity sense. Where the equity definition of insolvency is used, a corporation whose assets exceed its debts may nevertheless be rendered insolvent by a dividend, where the payment of the dividend absorbs cash that is needed to meet obligations as they mature.

OTHER RESTRICTIONS.—A corporation's charter, by-laws, or bond indentures may impose restrictions upon the payment of dividends beyond those imposed by the statute. A common restriction limits dividend declarations to payments out of earned surplus accumulated after a specified date, to prevent the use of surplus previously accumulated for this purpose. A restriction often inserted to protect preferred stock and bond issues provides that dividends shall not be paid if they will reduce current assets to, say, less than twice current liabilities, or if net working capital will thereby be reduced below a specified amount.

Furthermore, corporations subject to special regulation may have to conform to additional statutory provisions. Thus, section 12(c) of the Public Utility Holding Company Act of 1935 provides that approval by the Securities and Exchange Commission is required for payment of dividends out of capital or unearned surplus by a registered holding company or its subsidiary. Accounting regulations imposed under the Interstate Commerce Act, the Motor Carrier Act, the Federal Water Power Act and the Federal Communications Act affect dividend declarations by corporations subject to these statutes.

A discussion of these federal statutory restrictions applicable to dividend declarations will be found in Kehl, Corporate Dividends.

JUDICIAL COMPULSION TO PAY DIVIDENDS.—Stockholders sometimes seek to compel a corporation to declare dividends on preferred or common stock, where the board of directors does not do so even though large earnings are reported. The courts have been loath to interfere, holding that the declaration of a dividend is a matter of business judgment that should be left to the discretion of the board. Also, there is reluctance to overrule a conservative course of action by corporate management.

There have been a few cases, however, where the courts of equity have held that failure to pay dividends imposes an undue sacrifice upon shareholders, or that the purpose of the board in not declaring a divi-

dend is to depress the price of the stock and so induce outside stockholders to sell their holdings.

The most celebrated equity case was Dodge v. Ford Motor Co. (204 Mich. 459, 140 N.W. 668), in which the board of directors of the Ford Motor Co. was ordered to declare a dividend of $19,000,000 out of earnings of more than three times that amount. Referring to Henry Ford's argument that he wanted to put the bulk of the earnings of the corporation back into the business to expand production and employ more men, the court said:

> A business corporation is organized and carried on primarily for the profit of the stockholders. The powers of the directors are to be employed for that end. The discretion of the directors is to be exercised in the choice of means to attain that end, and does not extend to a change in the end itself, to the reduction of profits, or to the non-distribution of profits among stockholders in order to devote them to other purposes.

If all stockholders agree to the distribution of a dividend and the directors do not oppose the distribution, such a "consent dividend" may be validly distributed in many jurisdictions without specific vote of the board of directors. This will occur only in close corporations.

DIVIDEND A DEBT TO STOCKHOLDERS.—A dividend which is properly declared creates a debt by the corporation to stockholders. However, where declaration of a dividend violates the statute, or is otherwise illegal, no debt is thereby created. Furthermore, if no announcement has been made of the dividend and stockholders have no knowledge that it has been declared, it may be revoked without stockholders' consent (Hunt v. O'Shea, 69 N.H. 600).

It is realistic to list cash dividends payable, where they are legally declared, as a current liability of the corporation. A stock dividend payable, on the other hand, is properly carried along with capital stock outstanding in the net worth section of the balance sheet.

REMEDIES FOR IMPROPER DIVIDENDS.—Many of the state corporation laws specifically make directors liable for illegal dividend declarations. Creditors of the corporation, a trustee in bankruptcy, or a new management may sue directors to recover sums paid out in dividends that are illegal. A few states, such as New York and Utah, make it a misdemeanor for a director to vote for a dividend that impairs capital, and criminal penalties have been imposed in several such cases.

It has been held that a director who attends a meeting at which a dividend is illegally declared becomes liable like a director who votes for it, but that a director who records his vote as opposed to an illegal declaration of dividends thereby escapes personal liability. In Illinois, directors who vote for an illegal dividend are guilty of conspiracy. Delaware and some other jurisdictions make good faith a defense where a director is sued because of improper dividend declarations, reliance upon audited financial statements being considered evidence of good faith.

The right to recover illegal dividends directly from stockholders is restricted under corporation laws in this country, although it is the prevailing practice under European law. When a dividend payment renders a corporation insolvent, such a distribution is generally recover-

able from stockholders. But a number of laws specify that a dividend, even though illegally declared, may not be recovered from the stockholders if they received it in good faith.

Because of civil and sometimes criminal liabilities incurred by directors for improper dividend declarations, it is particularly important that the financial statements used as a basis for dividend actions shall be prepared in accordance with the law of the state in which the corporation is incorporated and pertinent judicial decisions. Otherwise, directors may unwittingly declare a dividend in the belief that a surplus or net profit exists, when under statutory provisions and judicial precedents no surplus would be held available for this purpose.

DIVIDEND RESTRICTIONS ON FOREIGN CORPORATIONS.—The courts of several states, such as New York and Arizona, have sought to apply their dividend statutes not only to corporations chartered by them, but also to foreign corporations doing business within the state. Normally, however, where a conflict exists between the law of the state of incorporation and the state of doing business, the former will apply. For a discussion of this question, see Kehl (Corporate Dividends).

Tax Aspects of Dividend Policy

SURTAX ON REINVESTED EARNINGS.—Higher rates of taxation have greatly increased the importance of the tax consequences of dividend policies, both for the corporation and for the stockholder individually.

Since 1920, the Revenue Act has contained penalties for unreasonable accumulations of surplus. This provision became of major importance after the repeal of the undistributed profits tax in 1939, for the burden of proof that surplus accumulations are not unreasonable was then placed upon the corporation. Section 102 of the Internal Revenue Code imposes a special surtax of 27½% on unreasonable additions to surplus up to $100,000 in any one year, and 38½% on annual unreasonable accumulations in excess of $100,000. This surtax is imposed upon "undistributed section 102 net income," computed in accordance with the statute.

Assessment of section 102 surtax is governed by instructions to revenue agents contained in Treasury Decision 4914, issued in 1939, and Treasury Decision 5398, issued in 1944. Under these instructions, revenue agents are to recommend the imposition of section 102 surtax in the following cases:

1. Corporations which have not distributed at least 70% of their earnings as taxable dividends.
2. Corporations which have invested earnings in securities or other properties unrelated to their normal business activities.
3. Corporations which have advanced sums to officers or shareholders in the form of loans out of undistributed profits or surplus from which taxable dividends might have been declared.
4. Corporations, a majority of whose stock is held by a family group or other small groups of individuals, or by a trust, or trusts, for the benefit of such groups.

5. Corporations, the distributions of which, while exceeding 70% of their earnings, appear to be inadequate when considered in connection with the nature of the business or the financial position of the corporation or corporations, with accumulations of cash or other quick assets which appear to be beyond the reasonable needs of the business.

A corporation required to pay surtax under section 102 may appeal from the Commissioner of Internal Revenue to the Tax Court. Since findings of the Tax Court as to facts, as distinct from law, are ordinarily final, such cases cannot usually be carried to the higher federal courts. Hence, unless substantial reasons can be advanced for retaining a large part of current earnings in the business, the management would be well advised to distribute at least 70% of the net profits as dividends on preferred and/or common stock to avoid surtax. The management of a publicly owned corporation may be criticized for subjecting itself to section 102 surtax to relieve a few wealthy stockholders from high personal income surtaxes, since small shareholders not subject to high personal taxes are the losers from such a policy.

For 1946, corporation income tax returns had to state why more than 30% of net income was retained in the business, if this was the case. This requirement was abandoned after that year, however.

Section 102(b) of the Revenue Act states that a holding or investment company is assumed on its face to be created for the purpose of avoiding high personal income taxes, and so becomes subject to section 102 surtax if any considerable part of the earnings is retained.

A particularly severe penalty upon undistributed earnings is imposed by section 500 of the Internal Revenue Code upon personal holding companies, since these are considered by their very nature to be created solely to enable wealthy individuals to avoid surtaxes on their personal incomes. Such corporations are required to pay a 65% tax upon undistributed net income up to $2,000, and 75% on amounts in excess of $2,000. A personal holding company is defined as a corporation 80% of whose gross income is derived from interest and dividends, securities and commodities transactions, personal service contracts, rents and royalties, and if more than 50% of its outstanding stock is owned, directly or indirectly, by or for not more than 5 individuals.

The surtax upon undistributed income is designed to prevent the use of the corporate form of business organization to avoid the heavy surtaxes levied upon higher brackets of personal incomes. This is sought by imposing penalty surtaxes, over and above all other corporate taxes, upon reinvested earnings that are retained for the purpose of avoiding personal income surtaxes. Such taxation has been strongly opposed upon economic grounds, in that it discourages corporate savings and penalizes, over the long run, the use of corporate income for business expansion.

DIVIDENDS AND STOCKHOLDERS' TAXES.—From the stockholders' viewpoint, liberal dividends are unattractive when received by persons in the high income brackets. Wealthy stockholders are generally better off if a smaller proportion of earnings is distributed as dividends, for they can then benefit from appreciation of the market value of their holdings or stock dividends, instead of receiving taxable cash dividend distributions. When this appreciation in value is realized

through sale of the stock, the long-term capital gain is subject to a maximum tax of 26%, regardless of the surtax bracket of the taxpayer. The larger the extent to which capital stock of a corporation is owned by shareholders in the higher income brackets, therefore, the greater the incentive to limit dividend distributions and to reinvest the larger part of the profits in the business.

Financial Considerations in Dividend Declarations

WORKING CAPITAL POSITION.—Since cash dividends reduce current assets of the corporation, the effect of dividend distributions upon the working capital position of the enterprise must be carefully weighed. It is obviously short-sighted and unsound to impair working capital for dividend purposes. Particularly where there is any question about the adequacy of current assets to meet current liabilities and operating expenses, therefore, a projection of cash requirements should be made to insure that funds to be used for dividend distributions can be spared.

The fact that current cash holdings are adequate does not alone justify a dividend declaration. If a corporation must borrow some years hence to replenish working capital that has been impaired by dividend distributions, in effect it borrows to pay the dividend. For this reason, a projection of cash income and outgo for a period of 2 years or longer ahead should be weighed in formulating dividend policy, where capital resources are scant.

Stock and property dividends, which do not involve a diminution of working capital, are sometimes paid when the need for conserving working capital causes cash dividends to be reduced or eliminated.

NEW CAPITAL REQUIREMENTS.—Even where working capital is adequate to permit a dividend distribution, the need for additional fixed capital may make payments unwise. Fixed, as well as working, capital requirements should be projected, and the available sources for such capital considered, before a dividend policy is crystallized.

Even where a business has an expansion program that holds out every hope of being profitable, it may not be possible to secure the requisite capital on reasonable terms through new financing or through loans. Therefore, management may have to look to the reinvestment of earnings as a major or sole source of funds for expansion. In that event, long-term capital needs could well become the chief consideration in the formulation of dividend policy. Where expansion involves substantial risks and may prove unjustified by results, there is so much more reason to finance it in whole or part from earnings where this is feasible.

SPECIFIC OBJECTIVES.—A corporation's dividend policy must normally be based upon legal, tax, working capital, and fixed capital requirements, as already indicated. In addition, specific objectives may influence declarations in particular cases. In connection with new financing or mergers, the board of directors may feel impelled to liberalize dividend distributions to secure more favorable terms. Where stockholder dissatisfaction with management or a proxy battle has developed, similarly, a larger dividend distribution may be considered expedient

to win the favor of shareholders. The desire to facilitate distribution of a block of stock held by persons close to management may be a factor also in governing dividend declarations.

Corporations that need to raise large amounts of capital from time to time for expansion often adopt a stable dividend policy, since this helps to secure an investment status for capital stock and thus facilitates sale of new shares to investors. A corporation that has an issue of convertible bonds outstanding may raise the dividend rate on its common stock in order to hasten conversion. There have been cases where a large cash dividend is declared solely to make conversion attractive, since only bondholders who convert will be entitled to this dividend.

Corporations have shaped their dividend policy at times to further broad corporation objectives. Thus, public utility holding companies have used stocks of subsidiaries for the purpose of distributing property dividends, while cash earnings have been conserved to pay off debt or preferred stock of the holding company. In this way, two objectives are accomplished: divestment of subsidiaries and redemption of senior securities.

A financial objective that at times assumes major importance is the devotion of most or all of the earnings of a corporation to the retirement of debt or preferred stock, where the capital structure has become top-heavy due to loss of earning power or the changed outlook of management. Many railroads have pursued this policy assiduously in recent years, with the result that dividend payments have been small in relation to earnings.

Form of Dividends

CASH DIVIDENDS.—The large majority of dividends are payable in cash. Corporations incorporated abroad usually pay dividends in their own currencies, and in some cases restrictions apply to the transfer of dividends out of a country. Also, Canada and some other countries impose a dividend tax that is withheld at the source, so stockholders do not receive the amount declared on their shares.

STOCK DIVIDENDS.—Next to cash dividends, dividends payable in stock of the corporation are most usual. Stock dividends can be payable in preferred or common stock. Stock dividends differ from split-ups in that surplus is debited and capital stock is credited for the amount of the stock dividend, whereas in a true split-up an increased number of shares is issued without changing the total par or stated value of the corporation's capital stock. With par value stock, this makes necessary a reduction in the par value of each share in the case of split-up, whereas in the case of a stock dividend the par or stated value of each share remains unchanged.

Purpose of Stock Dividend.—A common use of stock dividends has been to reduce the selling price of a corporation's stock by increasing the number of shares outstanding. To attain this objective, it is customary to pay large stock dividends, varying from 25% to several hundred per cent. Declaration of such a large stock dividend, or announcement of a split-up, is popularly described as "cutting a melon."

A second major objective of stock dividends has been to conserve the corporation's cash while maintaining distributions to shareholders. This usually calls for a relatively small stock dividend to capitalize only the earnings of one year. The North American Co. for a number of years distributed a stock dividend at the rate of 2½% quarterly so as to conserve cash to finance expansion. The use of stock dividends for this purpose makes the value of the distribution received by stockholders independent of the earnings in any one year, and so can lead to a speculative rise in the price of stock under favorable market conditions. Any stockholder who does not want to keep a stock dividend can sell the additional shares received, thus obtaining a current return without reducing the number of shares held. A stock dividend paid in lieu of cash distributions on account of current earnings has been described as a "pacifier," to allay stockholders' dissatisfaction over a lack of current cash income on their investment. Corporations considering the payment of a small stock dividend should take into account the nuisance of dealing with numerous fractional shares.

Corporations may pay dividends in preferred stock on common stock and retain cash earnings in the business, thereby in effect selling preferred stock at par. As will be seen presently, from the tax standpoint a stock dividend policy of this kind is desirable because it avoids the possibility of imposition of section 102 surtax.

Taxability of Stock Dividends.—The United States Supreme Court in 1920 ruled that ordinary stock dividends do not constitute income as that term is defined in the Sixteenth Amendment to the Federal Constitution, under which the federal income tax is imposed, because the proportionate share of each stockholder in the business is not changed. In stating the opinion of the court, Justice Pitney said:

> The fundamental relation of "capital" to "income" has been much discussed by economists, the former being likened to the tree or the land, the latter to the fruit or the crop; the former being depicted as a reservoir supplied from springs, the latter as the outlet stream, to be measured by its flow during a period of time. . . . Here we have the essential matter: Not a gain accruing to capital, not a growth, or increment of value in the investment; but a gain, a profit, something of exchangeable value proceeding from the property, severed from the capital, however invested or employed, and coming in, being "derived"—that is, received or drawn by the recipient (the taxpayer) for his separate use, benefit and disposal—that is, income derived from property. (Eisner v. Macomber, 252 U. S. 206–7.)

The revenue laws beginning with that of 1921 have specifically excluded stock dividends from income taxes. The United States Treasury since has sought to get the Supreme Court to reverse its decision in Eisner v. Macomber and to hold stock dividends taxable, but the court in each such case has ruled that so long as Congress exempted stock dividends from income taxes, it will not reconsider the earlier decision.

Stock dividends paid in a different class of stock, however, are usually taxable. The court has held that a dividend in preferred stock upon common stock, where some preferred stock was already outstanding at the time of the declaration, is taxable. (Koshland v. Helvering, 298 U. S. 441, 1936.) Similarly, a dividend payable in common stock upon preferred stock is taxable.

Decisions on the taxability of stock dividends are based upon the principle that a distribution in stock is taxable if the proportionate interest of each shareholder in the enterprise is changed. A stock dividend upon common stock payable in common stock is not considered income because the proportionate interest of each common stockholder in the business is not changed. If no preferred stock was outstanding previously, a distribution of preferred stock pro rata upon the common stock leaves the proportionate interest of each shareholder unchanged and so is not taxable. On the other hand, if preferred stock was already outstanding, the proportionate interest of each shareholder is modified by a stock dividend payable in preferred upon common.

A dividend payable in stock where the shareholder has the option to take cash in lieu of stock has been held to be a taxable distribution, even though few shareholders, or none, accept cash. Such **optional dividends** are sometimes declared by closely held corporations where it can be determined in advance that most stockholders will take the stock.

Taxable stock dividends provide a means of avoiding section 102 surtax without distributing the corporation's cash. However, taxable stock dividends create a problem for stockholders, since they are under pressure to sell stock dividends received, perhaps at a sacrifice, to raise cash to pay the tax due upon the stock dividends.

Listing Stock Dividends.—The New York Stock Exchange has taken cognizance of the danger that the use of no-par and low-par value shares can lead to excessive resort to such distributions. It has issued the following statement on stock dividends which involve the listing of additional shares and so come directly under the Exchange's purview:

> In order that the import of the stock dividend may be fairly indicated to the security holder, the Exchange, in authorizing the listing of additional shares for such a stock dividend:
>
> 1. will consider the relationship between the amount of the earnings and the fair market value of the number of shares to be issued for this purpose; and
> 2. will expect that the amount of earnings or earned surplus to be capitalized for each dividend share would be at least the fair market value per share, it being understood that it is impracticable to define exactly "fair market value" but it would appear that this term would ordinarily mean an amount which bears a reasonable relationship to the range of market prices established on the Exchange over the period during which the income to be capitalized by the stock dividend was earned.
>
> Where the reported net tangible assets per share applicable to the common stock for the increased number of shares to be outstanding after the stock dividend would exceed the fair market value, then the amount of the net tangible assets should be substituted for the fair market value in determining the number of shares to be issued and the amount to be capitalized.
>
> This statement of policy does not apply to an occasional large stock split-up which, for convenience, is effected in the form of a stock dividend.

Stock Dividends and Financial Statements.—The Committee on Accounting Procedure of the American Institute of Accountants has suggested the following principles to govern the reflection of stock dividend declarations in financial statements:

Amount of Earned Surplus to be Capitalized. While the aggregate amount of earned surplus to be capitalized by the stock dividend, as distinguished from the number of shares to be issued, is within the discretion of the board of directors, proper corporate policy requires that in the case of regularly recurring stock dividends, the amount of earned surplus capitalized should not exceed the amount of current income, since such dividends are likely to be interpreted by the stockholders as notice that the corporation has current income which it is not desirable or practical to distribute in cash dividends. As used herein, the term "current income" refers to the income of the fiscal period in which the stock dividend is issued, or to the income of a comparatively small number of fiscal periods immediately preceding the date of the stock dividend. The charge to earned surplus with respect to such stock dividends should not be in excess of the current income as thus defined after deducting any prior cash dividends and capitalizations by stock dividends within the indicated period.

Number of Dividend Shares to be Issued. Proper accounting and corporate policy also require that the amount of income capitalized per share bear an appropriate relationship to the existing capitalization per share. Accountants now generally regard the capital-stock and the capital-surplus accounts as being in essentially the same category, i.e., capital, despite the fact that they are reported separately for legal and accounting purposes. The amount per share in the capital-stock and capital-surplus accounts combined, before the issuance of the stock dividend, should be maintained upon its issuance by capitalization of at least a like amount of earned surplus for each dividend share. The number of dividend shares should therefore not exceed the number determined by dividing the amount of earned surplus authorized to be capitalized by the total amount per share in the capital and capital-surplus accounts before the declaration of the stock dividend. The foregoing computation may be adjusted by the elimination from such capital surplus of any portion thereof not forming part of the book value of the common stock.

In addition to meeting the foregoing requirement the directors, in their study as to the number of shares to be distributed as a stock dividend, should take into consideration a fair market value per share for the increased number of shares to be outstanding after the stock dividend, and where such fair market value per share is substantially in excess of the amount per share of the combined capital-surplus accounts before the stock dividend, they should fix the number of dividend shares so that the amount charged to earned surplus per share will have a reasonable relationship to such fair market value. Unless such relationship is maintained, the stockholder may believe that the market value of the dividend shares he receives represents his pro-rata share of the capitalized current income of the corporation, whereas the market value per share may be materially in excess of such capitalized income per share.

When the amount of earned surplus capitalized per share of dividend stock exceeds its par or stated value, the excess should be credited to capital surplus. There may also be cases involving no-par-value shares in which a portion of the credit should be made to capital surplus.

In the case of any stock dividend, the issuing corporation should inform its stockholders, by notice at the time of issuance, as to the amount capitalized per share and the aggregate amount thereof, as well as to the account or accounts to which such aggregate has been charged and credited, whether or not such notification is required by statute or regulation. In addition, the corporation should inform the stockholder as to the percentage by which the interest which he had in the corporation before the issuance of the stock dividend will be reduced if he should decide to dispose of his dividend shares.

Commenting on this, the New York Stock Exchange has said:

It appears that in determining the number of shares to be issued as stock dividends adequate consideration has not been given in all cases to the relation of the market value of the dividend shares to the current earnings. Unless a reasonable relationship is maintained, the stockholder may believe that the market value of the dividend shares he receives represents his pro-rata share of the capitalized current income of the corporation whereas the market value per share may be materially in excess of such capitalized income per share.

A notice to stockholders setting forth the information contemplated by the Bulletin as outlined should be sent out at the time the shares are issued.

For corporations receiving stock dividends on securities held, the Committee recommends:

An ordinary stock dividend is not income from the corporation to the recipient in any amount.

Upon receipt of such a dividend the cost of the shares previously held should be allocated equitably to such shares and to the shares received as a stock dividend.

The New York Stock Exchange has adopted this procedure as its own policy.

Rescission of Stock Dividends.—Unlike cash dividends, stock dividends do not become a debt of the corporation between the date of declaration and actual payment. The board of directors may rescind a stock dividend any time before it has been distributed, and no liability is thereby incurred.

BOND DIVIDENDS.—Bond dividends have been distributed occasionally in lieu of cash. The theory behind their use is that a corporation, in lieu of selling bonds to other investors, may distribute bonds to stockholders and retain the cash for the business' needs.

Dividends payable in bonds are not considered sound practice, however. It is felt that a corporation should not incur debt except for the actual needs of the business. The Interstate Commerce Commission has denied a number of applications by railroads to issue bonds to be distributed as dividends.

SCRIP DIVIDENDS.—Corporations may sometimes seek to maintain a regular dividend record without paying out cash immediately. This is done through distributing notes payable either at some date in the future or by installments over a period of several years. Such distributions have been called scrip dividends, since notes are issued in small denominations, or for the specific amount payable to each stockholder.

The term "scrip dividend" has sometimes been used also for small stock dividends which involve the issuance of a number of fractional stock certificates. In effect, however, such distributions are properly described as stock dividends, with fractional scrip used to pay dividends to stockholders who are not entitled to full shares.

PROPERTY DIVIDENDS.—Dividends are sometimes payable in the form of property. The most common type of property dividends has been the distribution by a holding company of securities of its subsidiaries. The holding company can thereby divest itself of part or all of its stock ownership in the subsidiary. Such property dividends

are always taxable even though the securities distributed are common shares of the subsidiary. To the stockholder, such property dividends are taxable at their fair market value on the date of receipt, which is ordinarily determined by the initial quotation for the security on that day. On occasion, corporations have also distributed as dividends securities that were held as investments for liquid funds. In certain instances, government bonds have been distributed in this way.

In a smaller number of cases, property dividends have taken the form of physical property. The Central Railroad of New Jersey, early in its history, distributed building lots as a dividend to stockholders to attract additional population along its line. Distilling companies have distributed whiskey as a dividend. A number of smaller companies manufacturing consumer goods have distributed their products to stockholders for the dual purpose of making a valuable distribution to them and of broadening the sale of these products.

Designation of Dividends

REGULAR DIVIDENDS.—When a dividend declaration is designated as "regular," it is implied that the board of directors believes it can be repeated periodically, assuming no drastic change in the circumstances affecting dividend distributions. Most commonly, regular dividends are declared quarterly. A minority of corporations declare regular dividends monthly, semiannually, and even annually.

The seriousness with which managements take the designation of a "regular" dividend varies markedly. In some instances, great pains are taken to keep the dividend rate unchanged even under varying conditions, and accounting and other policies are designed as far as possible to protect the regular dividend rate. The ability of the American Telephone & Telegraph Co. to maintain its $9 dividend rate unchanged through the depression of the 30's is a classical example of how management can maintain a regular dividend record. In numerous other instances, the board of directors has been quite ready to change the regular dividend rate, even when circumstances have not altered materially. Depression conditions, imposition of high undistributed profits taxes in 1936 and 1937, and the surtax on unreasonable accumulations of surplus in subsequent years have discouraged regularity of dividend payments.

EXTRA DIVIDENDS.—When a dividend is designated as "extra," the board of directors makes it explicit that there is no assurance that the distribution can be repeated. When there is uncertainty as to whether high earnings will be maintained, it is common to leave the regular dividend rate unchanged and to supplement the regular distribution with an extra. This extra dividend may be paid quarterly, or it may be paid at the end of the year to reflect better than expected earnings for that year. Some corporations pay their regular dividends in cash, while extras are paid in stock or property.

SPECIAL AND IRREGULAR DIVIDENDS.—A dividend so designated is represented explicitly as being in the nature of a "windfall" to stockholders, and therefore unlikely to be repeated. Stock-

holders are thus placed on notice that they are not justified in assuming that such dividends will recur. Otherwise, there is the possibility that the public will assume that the special or irregular dividend reflects a regular dividend policy, and the price of the stock might unjustifiably discount that greater distribution.

INTERIM AND FINAL DIVIDENDS.—A number of American corporations during recent years have adopted the British practice of interim and final declarations and given up the attempt to establish a regular quarterly or semiannual dividend rate. Distributions made from time to time during the year are designated as "interim" dividends, representing the distribution of part of the year's earnings. Then, at the end of the year, a final or year-end disbursement is made, constituting the balance of the earnings that are to be distributed as dividends for the year. Corporations subject to the surtax for unreasonable accumulations of surplus are more prone to adopt the interim and final or year-end dividend than others. Interim dividends, under this policy, may be distributed once or as many as four times during the year, with the final or year-end disbursement being paid in December. It must be paid by the end of the year, to count as a distribution for section 102 surtax purposes.

LIQUIDATING OR CAPITAL DIVIDENDS.—When a dividend is designated as "liquidating" or as a return of capital, the stockholder is put on notice that part of the capital is being returned to him, and that the distribution he receives does not come from earnings of the business. Such dividends will not then be looked upon as recurring in nature. Furthermore, stockholders will know that the dividend is not taxable to them, but results rather in a corresponding reduction in the cost of the shares or basis for capital gains tax purposes.

Mining companies, investment trusts, and others whose dividends constitute in part or whole a return of capital should make this fact known to the stockholders, regardless of how the dividend is designated in making it public, so they can be guided accordingly in the preparation of their personal income tax returns.

Types of Dividend Policy

DIVIDEND POLICIES.—Wide variety is encountered in dividend policies. Such policies reflect numerous factors, such as the trend of corporate earnings, sensitivity of the corporation to the business cycle, the capitalization of the corporation, future needs for working and fixed capital, the character and tax position of the stockholders, the attitude of the board of directors, etc. Dividend policies encountered frequently among American corporations are:

Regular Dividend Policy.—Particularly before the great depression of the 30's, the establishment and maintenance of a regular dividend rate upon a corporation's common stock was the ultimate objective of numerous managements. Such a regular dividend policy was expected to secure an investment status for the corporation's stock, thereby facilitating new financing and mergers, widening ownership of the

corporation's stock, and winning approval for the management among the rank and file of shareholders.

No Dividend Policy.—Many corporations, particularly those in rapidly growing industries which relied upon reinvested earnings rather than new financing for capital, have refrained from paying out dividends over long periods. Stockholders then look to appreciation of their holdings, and stock dividends and split-ups and only ultimate cash declarations, rather than current dividend distributions, for a return on their capital. The surtax on unreasonable accumulations of surplus limits adoption of this policy today, but it is still encountered. It is still feasible for commercial banks, where regulatory authorities favor expansion of capital out of earnings, and other enterprises not fearful of tax penalties for nonpayment of dividends because they can prove a business need to retain all earnings in the enterprise.

Regular and Extra Dividend Policy.—A number of corporations are quite jealous of the regularity of their established dividend rate, seeking to maintain it under all conditions, but frequently declare extra dividends when larger earnings justify. This policy may result in the payment of extra dividends year in and year out over a period of years, until finally the regular rate may be raised because the board comes to feel that a higher rate can be maintained indefinitely.

Regular Plus Stock Dividend Policy.—The Standard Oil companies for many years pursued the policy of distributing small regular cash dividends, but occasional large stock dividends to capitalize reinvested earnings. This policy is still feasible where the surtax upon unreasonable accumulations of surplus does not interfere.

Irregular Dividend Policy.—Some corporations prefer to make no attempt to establish a regular dividend rate, but instead vary dividend distributions from year to year and even from quarter to quarter with earnings and other conditions. This may involve dividend declarations every few months without even an attempt to make periodic payments, or the irregularity may be limited to the rate, with payments declared quarterly, semiannually or annually, or on an interim and final basis.

Regular Stock Dividend Policy.—During the 20's, some corporations, notable among which was the North American Co., limited themselves to the distribution of stock dividends on the common. The management argued that it was not logical to distribute cash dividends and then offer new stock to shareholders from time to time, thus in effect taking back the dividends distributed. It was more direct, it was stated, to distribute the stock directly, and shareholders who did not want to keep the additional shares could sell the stock dividends received.

This policy is practicable, however, only for a corporation enjoying steady growth. Otherwise, the periodic stock dividends merely dilute the capital stock. No corporation can count upon an indefinite regular rate of growth, and during the depression of the 30's corporations that had adopted the regular stock dividend policy abandoned it.

Property Dividend Policy.—Some enterprises, particularly those that are constantly developing new subsidiaries, distribute securities of other corporations as part or all of their dividend distributions. Holding

companies that are required to dissolve also have adopted a property dividend policy to distribute their assets to shareholders.

Dividend Policies in Wasting Asset Industries.—Because of the many uncertainties that surround accurate computation of the depletion charge against earnings, and because it may not be possible to replace an exhausted natural resource by acquiring new property of similar character, dividend policies of wasting asset enterprises are affected by special considerations. Policies encountered in such enterprises are:

1. Distribution as dividends of the entire excess of receipts over current disbursements, except for sums required for working capital, without any effort to accumulate a reserve for the replacement of the natural resource. In such cases, it is assumed that when the natural resource has been exhausted, the enterprise will be liquidated. A number of mines and some smaller oil-producing companies have adopted this policy, informing stockholders with each dividend check of the proportion of the payment that constitutes a return of capital, so that they will not pay income tax thereon.
2. Only a part of the earnings after depletion is paid out in dividends, the balance of net receipts being retained in the business and used to acquire new natural resources or to diversify the enterprise by entering some other type of activity. Thus, an oil-producing company may use funds derived from depletion and undistributed earnings to acquire new oil leases, or to build refining and marketing facilities so as to become less dependent upon wasting assets for future earnings.
3. Depletion reserves and part of the earnings may be retained in the form of cash or government securities, to be utilized in the future as and if occasion arises. The management may decide subsequently to invest these reserves in the same business, to enter some other line of activity, to become a general investment or investment-management company, or to distribute these liquid assets as liquidating dividends. Where an efficient organization has been built up to manage a wasting asset that cannot be replaced when exhausted, it is often considered preferable to utilize this organization in some other profitable activity than to dissolve it by liquidation.

Mechanics of Declaration and Payment

RESOLUTION OF THE BOARD.—The authority to declare dividends is vested in the board of directors, ordinarily by specific statutory authorization. Only in the case of some closely held corporations are dividends sometimes distributed by consent through informal agreement by all the stockholders. A dividend declaration by a board of directors is effected by a resolution approved by a majority or all the directors at a regular or special meeting of the board. This resolution will specify the amount of the dividend, the class of stockholders entitled to receive it, the date of record when the list of shareholders that are to receive the dividend is to be compiled, and the date of payment.

A typical resolution declaring a regular dividend follows:

RESOLVED, That the regular quarterly dividend of ..... per cent on the common stock of this Corporation be and it hereby is declared, payable on the ..... day of ....., 19...., to stockholders of record at the close of business on the ..... day of ....., 19.....

A resolution declaring dividends on preferred and common stock, payment to be made by the transfer agents, would read as follows:

RESOLVED, That the regular quarterly dividend of ..... (.....¢) Cents per share on the participating convertible stock of this Corporation be and it hereby is declared payable on the ..... day of ....., 19...., to stockholders of record of said stock at the close of business on the ..... day of ....., 19...., and

RESOLVED FURTHER, That a dividend of ..... (.....¢) Cents per share on the common stock of this Corporation be and it hereby is declared, payable on the ..... day of ....., 19...., to stockholders of record of said stock at the close of business on the ..... day of ....., 19....; and

RESOLVED FURTHER, That the Secretary be directed and authorized to certify these resolutions and to affix the seal of this Corporation hereto; and the Treasurer is directed and authorized to lodge the same with the Transfer Agents of the several classes of stock, and to take such other steps and perform any and all such further acts as may be necessary and proper to carry out the intents and purposes of these resolutions.

Minutes of dividend declarations should be included at length in the records, should question be raised later about them. A typical write-up of minutes covering dividend action is the following:

WHEREAS, it appears from the report of the Treasurer that the net profits of this Corporation for the three-months' period ending ....., 19...., after interest charges and reserves, amount to the sum of ..... ($.....) Dollars, and

WHEREAS, it appears from the report of the Treasurer that the surplus (exclusive of Special Surplus account) available for dividends on ....., 19...., is ..... ($.....) Dollars, and the Treasurer has reported that the same has not diminished since, it is therefore

RESOLVED, That for the purpose of paying the regular quarterly dividend of one and three-quarters (1¾%) per cent on ..... ($.....) Dollars preferred stock of the ..... Corporation, there is hereby set apart, out of the surplus net profits arising from the business, the sum of ..... ($.....) Dollars, and from such sum so set apart the Treasurer is hereby authorized and directed to pay, or cause to be paid, the said regular quarterly dividend of one and three-quarters (1¾%) per cent on ....., 19...., to preferred stockholders of record at the close of business on ....., 19.....

The Treasurer further reported that the present Surplus complied in all respects with the conditions required by the Certificate of Incorporation to exist for the payment of dividends on the common stock, and that the surplus available for dividends on the common stock on ....., 19...., after the sum of ..... ($.....) Dollars, heretofore at this meeting set apart for the payment of the quarterly dividend on the preferred stock, has been deducted, is ..... ($.....) Dollars.

Upon motion duly made and seconded, it was unanimously

RESOLVED, That for the purpose of paying a quarterly dividend of One ($1) Dollar per share on ..... (.....) shares of the common stock of the ..... Corporation now outstanding, there is hereby set apart, out of the surplus net profits arising from the business of the Corporation, the sum of ..... ($.....) Dollars, and from such sum so set apart the Treasurer is authorized and directed to cause to be paid the said quarterly dividend of One ($1) Dollar per share on ....., 19...., to the common stockholders of record at the close of business on ....., 19.....

STOCK DIVIDEND DECLARATIONS.—The procedure of a board of directors in the declaration of a stock dividend follows essentially the following pattern:

First, a resolution is passed which authorizes and justifies the dividend. A common form of such resolution reads as follows:

Whereas, the surplus profits of this Company, amounting to more than $....., have, from time to time, been invested in extensions and betterments to the plant and property of the Company, and in providing additional facilities for its business, and in that manner a large addition has been made to the value of the assets of the Company by withholding from the stockholders moneys which have been fairly earned, and but for the above mentioned expenditures would have been paid to them; and

Whereas, upon a just and fair estimate, the assets of the Company have been in such a manner increased in value over the amount of the capital stock, now issued and outstanding, by at least the said sum of $.....; and (If the dividend is to be in no-par value common shares, the foregoing clause may be omitted.)

Whereas, the stockholders desire to realize on profits which have been so invested, and to make the same more available, without impairing the property of the Company.

Now, therefore, be it resolved, that from the surplus profits so invested, a dividend of $..... (or, if the dividend is to be in no-par value common shares, of ..... shares of common stock without nominal or par value) for each share of the present issued and outstanding common stock of this Company be and is hereby declared, payable on the ..... day of ....., 19...., in the capital stock of this Company, to stockholders as shown by the books of the Company at the close of business on the ..... day of ....., 19....; and that the president and secretary be directed to issue proper stock certificates representing the same to such stockholders on such date.

As authorized by this resolution, the president and secretary thereupon proceed to issue such stock under the conditions set forth in the resolution. There must be on hand sufficient unissued stock to meet the requirements of the stock dividend. Otherwise, action by the president and secretary must wait upon the authorization of more stock by the state and by the stockholders through amendment of the charter in the manner prescribed by the law of the state. Usually such authorization is readily obtained.

Date of Record.—The date of record in dividend declarations will determine when the stock will be quoted **ex-dividend** on the stock exchange, if it is listed, or in over-the-counter trading. Ordinarily, listed shares will be quoted ex-dividend two full business days before the date of record, since settlements are effected on the third full business day following the date of the transaction. When the record date falls on a Saturday or holiday, the stock will be quoted ex-dividend on the third full business day preceding the date of record.

Only stockholders whose names appear on the corporation's stock books on the date of record will receive the dividend. On stock transferred after the date of record, but before the date of payment, the dividend goes to the seller. If some other arrangement is made, or is required by a stock exchange or the National Association of Security Dealers, a **due bill** goes to the buyer with the stock, specifying that he or his assignee is entitled to the dividend when paid.

Notice to Stockholders.—Corporations whose shares are publicly held frequently advertise dividend declarations in the financial columns of newspapers in financial centers, or communities where numerous shareholders reside. Typical notices are shown in Fig. 1.

PEPPERELL
FABRICS
Reg. U.S. Pat. Off.

Pepperell
Manufacturing
Company

Boston, November 1, 1946

A quarterly dividend of Fifty Cents (50¢) plus an extra dividend of Twenty-five Cents (25¢) per share have been declared upon the shares of Pepperell Manufacturing Company, payable November 15, 1946, to shareholders of record at the close of business November 8, 1946.

Checks will be mailed by the Old Colony Trust Company of Boston, Dividend Disbursing Agents for the Trustees.

P. E. Crocker, Secretary

160 State Street, Boston, Mass.

R. J. Reynolds Tobacco Company

Winston-Salem, N.C., November 14, 1946
The Directors have declared the quarterly dividend of 90¢ per share on the Preferred Stock, 3.60% Series, payable in cash on January 1, 1947, to stockholders of record at the close of business December 10, 1946.

W. J. Conrad, Jr., Secretary

FIG. 1. Typical Dividend Notices in Newspapers

Many corporations accompany the dividend check with a communication to stockholders containing an interim earnings statement and sometimes other pertinent information. It is in effect an interim earnings report. This communication may be printed on a folder within which the dividend check is contained. A sample folder accompanying dividend checks of the American Telephone & Telegraph Co. is shown in Fig. 2. In other cases, a brief notice only to the effect that it is in payment of specified dividends accompanies the dividend check.

PREPARATION OF DIVIDEND CHECKS.—The secretary of the company, if no transfer agent is employed, furnishes the treasurer with a list of stockholders of record. From this list the treasurer will make out the dividend checks.

Larger corporations usually send out special checks in payment of dividends with some identifying words printed thereon, as "Dividend Check" or "Dividend No. ....." Where checks are mailed, no formal receipt is required, as the endorsement on the check is sufficient acknowledgment.

DIVIDEND MAIL ORDER.—Some companies require that an order be filed by the stockholder before the dividend check will be

American Telephone and Telegraph Company

NEW YORK, JULY 5, 1946.

TO THE STOCKHOLDERS:

In the first half of 1946 demand for Bell System telephone service increased far beyond all previous records. We added 1,700,000 telephones—more than twice any previous six-month gain. We have been able to take care of all but about one-fourth of the more than 2,000,000 customers whose applications were held for lack of facilities on V-J Day. But the current demands are so great that there are around 1,800,000 people who are still waiting. The majority of these have applied for service since the first of the year.

Use of the telephone has increased to an extraordinary degree. Local calls have increased more in the last twelve months than in the previous five years and toll calls, including long distance calls, are substantially above a year ago. To handle the unprecedented volume of calls there are now over 230,000 Bell System telephone operators or 33,000 more than at the start of the year.

Although we have expended more than $250,000,000 since the first of the year for new construction and we are adding new facilities faster than ever before, the plant continues to be greatly overloaded.

(*Continued on back page*)

227TH DIVIDEND CHECK ENCLOSED
PAYABLE JULY 15, 1946

The Western Electric Company, the manufacturing branch of the System, has been currently producing telephones and central office equipment at the highest rate in history but just as the average individual today finds it hard to get butter or sugar or shirts and many other things, so the Company is faced with acute shortages of basic manufacturing materials, including lead, copper, cotton and steel. This problem is largely beyond our control. Supply is irregular and unpredictable. All sources are investigated, each item of possible use bought, and every effort made to employ substitutes. Despite these efforts, we cannot now obtain nearly enough raw materials to turn out new telephone equipment as fast as we should otherwise be able to produce it. If this situation continues, shortages of telephone plant will necessarily persist longer than we had hoped.

Bell System men and women in all departments are doing everything in their power to give service to all who want it as quickly as possible.

Mobile radiotelephone service, providing two-way communication between cars and trucks and any telephone connected with Bell System lines, was begun experimentally in May in St. Louis, Missouri, under regular commercial conditions. Equipment is presently available for only a few customers but this service, for which there is a substantial demand, will be expanded and extended to other cities as rapidly as conditions permit.

To obtain funds for plant expansion, the Company this month will offer for competitive bidding $125,000,000 of Forty Year Debentures, the coupon rate to be set by the successful bidder.

WALTER S. GIFFORD,
PRESIDENT.

(*Back Cover*)

FIG. 2a. Outside of Folder Accompanying Dividend Checks

American Telephone and Telegraph Company Earnings Report

(Figures for June, 1946, partly estimated)	3 Months Ended June 30,1946	3 Months Ended June 30, 1945	12 Months Ended June 30, 1946	12 Months Ended June 30, 1945
Operating Revenues	$52,539,000	$60,255,959	$223,487,000	$233,466,586
Operating Expenses	$36,784,000	$33,848,712	$147,226,000	$134,071,189
Taxes: Federal Taxes on Income	6,079,000	17,716,000	21,615,000 (a)	64,894,000
Other	2,500,000	2,669,513	9,803,000	10,142,092
Net Operating Income	$ 7,176,000	$ 6,021,734	$ 44,843,000 (a)	$ 24,359,305
Dividend Income	40,617,000	41,527,893	166,039,000	160,326,307
Interest Income	1,404,000	1,052,532	4,920,000	4,242,068
Other Income—Net	(115,000)*	(239,971)*	(15,937,000)*	(1,320,948)*
Total Income	$49,082,000	$48,362,188	$199,865,000	$187,606,732
Interest Deductions	4,617,000	5,310,629	20,679,000	22,139,809
Net Income (b)	$44,465,000	$43,051,559	$179,186,000	$165,466,923
Dividends	$45,749,000	$44,391,658	$181,423,000	$174,864.504
Earnings per share	$2.19	$2.18	$8.89	$8.52

Bell System Consolidated Earnings Report

(American Telephone and Telegraph Company and its principal telephone subsidiaries)	3 Months Ended May 31, 1946	3 Months Ended May 31, 1945	12 Months Ended May 31, 1946	12 Months Ended May 31, 1945
Operating Revenues	$519,296,606	$475,587,091	$1,997,009,473	$1,830,562,886
Operating Expenses	$390,550,465	$304,311,811	$1,405,487,133	$1,167,616,680
Taxes: Federal Taxes on Income	28,339,779	79,953,674	169,756,484 (a)	299,560,228
Other	38,948,870	36,816,241	149,669,218	142,841,258
Net Operating Income	$ 61,457,492	$ 54,505,365	$ 272,096,638 (a)	$ 220,544,720
Other Income—Net (c)	(3,662,743)*	2,776,533	(36,781,992)*	9,682,214
Total Income	$ 57.794,749	$ 57,281,898	$ 235,314,646	$ 230,226,934
Interest Deductions	9.772.903	11,260,107	43,775,530	46,805,065
Net Income	$ 48,021,846	$ 46,021,791	$ 191,539,116	$ 183,421,869
Applicable to Stocks of Subsidiaries Consolidated held by public	$ 1,607,040	$ 1,752,082	$ 7,036,996	$ 7,077,049
Applicable to Amer. Tel. and Tel. Co. Stock	46,414,806	44,269,709	184,502,120	176,344,820
Per Share—Amer. Tel. and Tel. Co. Stock	$2.29	$2.25	$9.17	$9.11

* Negative amount.

(a) Includes the effect of reduction in Federal taxes brought about by costs in connection with debt redemption and other non-recurring items. Other Income was charged with an amount offsetting such tax reduction. (b) Does not include the Company's proportionate interest in undistributed earnings or in deficits of subsidiary companies. (c) Includes proportionate interest in earnings or deficits of Western Electric Company and all other subsidiaries not consolidated (partly estimated). P. W. SAXTON, *Comptroller*

FIG. 2b. Inside of Folder Accompanying Dividend Checks (Request to Change Address not shown)

mailed. Otherwise the money will be held to the stockholder's order at some stated location. The following is a dividend notice of that kind:

American Navigation Company
Dividend No. 95

A quarterly dividend of one dollar and fifty cents ($1.50) per share on the capital stock of this company has been declared payable at the treasurer's office, No. 65 Broadway, New York, N.Y., on July 2, 19— to the stockholders of record at 3 P.M. on Thursday, May 31, 19—. The stock transfer books will not be closed for the payment of this dividend. Checks will be mailed only to stockholders who have filed permanent dividend orders.

May 10, 19— A. K. Jones,
Treasurer

The mailing order referred to in the foregoing dividend notice is shown below:

No Check Mailed Without an Order

To the TREASURER OF AMERICAN NAVIGATION COMPANY,
65 Broadway, New York, N.Y.

Until this order shall be revoked in writing, please send by mail in check payable to the order of

Address .....
in .....
Full .....

all dividends now due, or which may hereafter become due, on all stock now standing, or which may hereafter stand, on the books of your company in ..... name..

(Sign here .....
(Date) exactly as .....
name appears.....
..... on stock) .....

When payment is to be mailed to other than stockholder, signature of the latter MUST be acknowledged before a notary public on the back of this order and if signed by an attorney, administrator, executor, guardian or trustee, it MUST be accompanied by satisfactory evidence of the signer's authority.

On the back of the above mailing notice should appear a form for the notarial acknowledgment.

DIVIDEND BOOK.—Fig. 3 gives a suggested form of the record which the treasurer uses in connection with dividend checks handed to stockholders at the company's office.

Fig. 4 shows a typical record of dividend payments to stockholders as kept by the treasurer upon payments made by check sent by mail.

SPECIAL BANK ACCOUNT AND PAYMENT THROUGH FISCAL AGENT.—When a dividend is authorized, the usual entry on the books of account is a debit to surplus and credit to dividend payable account. This records the liability to stockholders. A good practice is to draw a single check for the total amount of the dividend for deposit to the credit of a special bank account, such as "Blank Com-

X. Y. Z. Manufacturing Company

Semiannual Dividend No. 24 .....19.. 4%

Name of Stockholder	Address	Number of Shares	Amount of Dividend	We Hereby Acknowledge Receipt of the Accompanying Dividend
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....
.....	.....	.....	.....	.....

FIG. 3. Form of Record for Dividend Checks Delivered at Company's Office

pany Dividend Account." The checks to the individual stockholders are then drawn on that account.

Many corporations employ banks or trust companies to act as their **fiscal agents** in the payment of dividends. The fiscal agent maintains the stock ledgers and transfer records. After a dividend is declared, the fiscal agent prepares and mails the dividend checks to the stockholders of record as of a certain date. The fees for this work are usually based on the number of checks issued.

The American Milling Company

Capital Outstanding $400,000

Dividend No. 24 Sheet No. 48

List of stockholders of this company as shown by the transfer books at six o'clock p.m., February 15, 19.., and to whom the dividend of ten per cent, declared February 12, 19.., is payable on March 1, 19...

SHARES OUTSTANDING 40,000 RATE OF DIVIDEND 10%

Name of Stockholder	To Whose Order Check Should be Drawn if Different from That of Stockholder	Mailing Address	Number of Shares	Amount of Dividend Paid	No. of Check Issued in Payment
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

FIG. 4. Form of Record for Dividend Checks Sent by Mail

Source and Character of Surplus

The disposition that can be made of surplus depends in part upon its source and its character. There is much to be said for restricting the term surplus to fewer accounts, but there is no objection to following prevailing usage provided proper qualifying adjectives are employed.

EARNED SURPLUS.—To the uninitiated, surplus and accumulated earnings are synonymous. Because of this confusion it is helpful to designate that part of surplus arising from accumulated earnings and to list the items usually included in such earned surplus, namely:

1. Earned from regular business operation.
2. Realized from the sale of fixed assets above book value.
3. Realized profit from the sale of investments.

UNAPPROPRIATED OR FREE SURPLUS.—After reserves and other appropriations have been deducted from earned surplus, the remainder becomes unappropriated or free surplus, available for dividend distribution.

CAPITAL SURPLUS.—To all intents and purposes such surplus is usually a part of the permanent investment in the business, but not from the viewpoint of the law, as only the capital stock is recognized as such. In some instances its position on the balance sheet so indicates. The U. S. Oil and Royalties Co. showed on the equity side of its balance sheet the following items:

Capital Stock	$832,059
Capital Stock Surplus	69,099
Surplus	148,094

While the law in some states permits declaration of dividends from capital surplus, such a practice can hardly be recommended as good business practice. Some companies are barred from taking advantage of this law by charter provision permitting dividends only from accumulated or current earnings. Ordinarily sources of capital surplus are as follows:

1. Paid-in surplus
   a. Gifts of assets to the corporation.
   b. Sale of stock.
      (1) Par stock at premium.
      (2) No-par stock with stated value.
      (3) No stated value stock.
   c. Donation of stock.
   d. Profit on stock.
   e. Stock assessments.
   f. Cancellation of indebtedness.
   g. Forfeited subscriptions.
   h. Reduction of capital.
2. Other sources
   a. Surplus from appreciation.
   b. Surplus from a merged company.
   c. Surplus in consolidation.
   d. Surplus in a holding company.
   e. Surplus in reorganization of solvent corporations.
   f. Surplus in reorganization of insolvent concerns.
   g. Surplus of a recapitalized corporation.

SURPLUS FROM GIFTS OF ASSETS.—An organizer of a corporation or other interested party might be so anxious to have it succeed that in times of stress he might make donations of money or other assets to it. Such gifts might properly be credited to paid-in surplus or carried separately as donated surplus.

Surplus arises from gifts of assets also in the case of a corporation which receives a donation of a tract of land as an inducement to locate its factory at a designated place. Such gift may be conditioned upon the erection of a factory building, the employment of a stated number of men, etc. After the conditions are fulfilled the surplus arising from the donation may be utilized as the directors dictate, even as the basis for dividend distribution.

SURPLUS FROM SALE OF STOCK.—A much more common source of paid-in surplus arises from the sale of stock.

Par Stock at Premium.—Accountants do not agree in their treatment of premiums on par stock. Some recommend that it be carried in a separate account labeled **"Premium on Capital Stock"** and kept there so long as the stock is outstanding. Others recommend that the account be written off. One writer (Esquerré) says: "As a matter of fact, premiums obtained on the issue of stock which has a par value are a capital liability precisely as they would be if the stock had no par value and there was no accounting objection to stating the capital stock at the amount of its proceeds."

Strict logic would seem to sustain this latter position. Whatever label be given to it, the contribution is made by the stockholder. Should a part of this contribution be carried to surplus and at some subsequent date should a dividend be declared therefrom, the stockholder would receive merely the return of a part of the original capital contribution. To this practice there can be raised no valid objection, provided the corporation no longer needs the capital and provided, further, the stockholder realizes that a part of his capital is being returned to him. It is the return of such capital under false pretenses—under the guise of dividends—that is objectionable.

Summarizing court decisions on the subject, L. L. Briggs stated (Jour. of Acctcy., vol. 53, Dividends from Stock Premiums):

> Although many leading accountants agree that premiums on capital stock are not available for dividends, the general corporation statutes give little or no light on the subject and the court decisions touching the point are not only scarce but conflicting and inconclusive. Most of the cases which have been quoted contain mere dicta, which may show a tendency on the part of the courts but may not be authoritative as law, while the rest of the cases have decisions based upon the interpretation of a particular statute or contract. It seems to me that this phase of corporation law is still in the process of development, and that it is extremely difficult at the present time to determine which way the weight of authority inclines. However, it is hoped that the courts eventually will set their approval upon what accountants consider to be conservative practice, that is, the prohibition of dividends from capital-stock premiums unless the stockholders are informed of the source of such distributions.

No-Par Stock.—Under the corporation laws of some of the leading charter-granting states, the capital contributions of shareholders in excess of the stated value of the shares may be credited to the surplus

account and subsequently distributed as dividends, although such distributions are usually limited to preferred stock dividends or stock dividends.

Where the law makes no provision for stated value of no-par stock, the board of directors may credit to the surplus account such arbitrary amount of the sale price of the stock as suits its fancy. But if the entire selling price of the shares constitutes capital under statutory provisions or court decisions in the state, this fact should be recognized in determining what shall be capital and what surplus. In some cases the distribution between the capital account and the surplus account may be made after the stock is sold—within 60 days, for instance. At times the relationship between "paid-in" surplus and the capital account assumes absurd proportions. The balance sheet of Good Year Shares, Inc., carried the capital stock of this company at only $100,000 while the "paid-in" surplus amounted to $11,944,960.

SURPLUS FROM DONATION OF STOCK.—Another common source of paid-in surplus is the donation of the company's own stock to its treasury. Particularly where par value stock is exchanged for fixed assets at an agreed valuation, it has been common for the recipients of the stock to return to the corporation's treasury a part of the stock, to be resold for the purpose of providing working capital. Since this **treasury stock** was issued originally as fully paid and nonassessable, it can now be resold at whatever price it will bring without obligating the purchaser to pay any attention to its par label. While it is probably true that the assets for which the stock was originally exchanged were overvalued, it might be very difficult to prove such overvaluation involved fraud. Stock may be donated also to replace an existing profit and loss deficit with a surplus.

SURPLUS FROM PROFIT ON REPURCHASED STOCK.—In addition to the receipt of its stock through donations, a corporation may acquire treasury stock through purchase. Should such purchase be for less than par or stated value, an apparent surplus is created. This becomes real only upon resale of the stock or its retirement. The policy of corporations in purchasing their own stock is governed by the laws of the various states, all limiting purchases to surplus and 9 forbidding such purchases as against public policy.

In 1927, the General Railway Signal Co. sold 32,500 shares for cash. After the break in the stock market in 1929 and later, it purchased a like amount at lower prices. Upon cancelling this stock so purchased through amending the charter to reduce the capital stock, the corporation added about $1,000,000 to its surplus in 1932.

A corporation may credit its surplus with book profit from the acquisition of the stock of its subsidiaries. Bing and Bing, Inc. carried on its balance sheet an item labeled "Special Surplus, representing net excess of book value, at date of acquisition, over cost of capital stock of subsidiaries."

When the International Printing Ink Corp. created a surplus of $110,426 through the retirement of its preferred stock at a discount, it carried this amount on its balance sheet under the unusual label "Unearned Surplus."

STOCK ASSESSMENTS AS SOURCE OF SURPLUS.—Creation of a surplus by means of stock assessments is an anomaly. This assumes assessments against full-paid stock, since assessments to fulfill promises to pay balances on part-paid stock would not affect surplus. Legally, full-paid stock is nonassessable, except in such instances as the board of directors are given authority by the articles of incorporation, by law, or by agreement, to levy assessments. Money is raised by this means only by close corporations, and even among them it is more common to reduce the par or stated value of outstanding stock to create a surplus preliminary to new stock financing.

The result of such assessment might be to create a bookkeeping surplus or to add to one already existing. The stockholders are unquestionably increasing their interest in the corporation; they are creating a "paid-in" surplus.

SURPLUS DUE TO CANCELLATION OF INDEBTEDNESS.—Since, by definition, surplus is the difference between the stated value of the corporation's assets and the sum of its liabilities and its stated capital, any reduction in liabilities, the other two items remaining constant, must result in an increase in surplus. Any compromise settlement with creditors by which liabilities would be cancelled by a payment of less than 100 cents on the dollar would have this effect. For various reasons it may become expedient for one or more creditors to accept a compromise settlement of their claims; at times they may be induced to cancel the entire claim in the hope of future gain.

The surplus thus created may be classed as paid in by the creditors rather than by the stockholders. It is not earned surplus.

FORFEITED SUBSCRIPTIONS GIVING RISE TO SURPLUS.—When a subscriber for stock of a corporation agrees to buy a block of stock on which he makes a down payment of less than par value (or less than stated value if the stock be no-par) and subsequently fails to complete the payment up to par (or stated value), the payments which he has made on the stock may be forfeited to the corporation. Since the corporation now has both the payments and the stock, the former is properly considered a part of surplus—paid by the would-be purchaser of stock.

SURPLUS DUE TO REDUCTION OF CAPITAL STOCK.—The most common source of surplus other than earnings has been a reduction of the par or stated value of capital stock through charter amendment. Thousands of corporations created surplus in this way during and following the depression of the 1930's. This surplus was used to eliminate a profit and loss deficit arising from operating losses, to secure sufficient surplus for writing down the value of fixed assets and other similar purposes.

Since the assets are not affected by reduction of the par or stated value of the capital, the difference between the stated value of the assets and the sum of the liabilities and stated capital—which has been designated surplus—will be increased in an amount equal to the reduction in the stated capital.

Such capital reductions are quite common among investment companies and others owning marketable securities, at times when quotations

are depressed. Without such action, dividends may not be legally possible. Thus, stockholders of the National Liberty Insurance Co. were asked in 1931 to ratify a proposal from the board of directors to decrease the par value of their stock from $5 to $2 per share in order to increase the surplus account by $6,000,000.

In one case (Strong v. Brooklyn Cross-Town Railroad Co., 93 N. Y. 426) it has been held that when the corporation's depreciated assets exceeded the liabilities plus the reduced stated capital, the surplus remaining could be used for dividend distribution. In some states, it is not clear whether a capital reduction surplus is available for dividends. Whether specifically sanctioned by law or not, this practice is followed by other corporations. In 1931 the Sioux City Stock Yards Co. reduced the stated value of its stock (preferred and common) from $4,500,000 to $2,700,000. "The directors were authorized and directed to cause the sum of $1,800,000, representing the reduction of the capital stock, to be transferred on the books of this corporation to capital surplus account; the directors were also authorized, in their discretion, to make distributions out of said capital surplus account, from time to time when surplus cash is available, to the stockholders of this corporation, both common and preferred, as their interests may appear."

The nature of such a distribution should be specified. The General Capital Corp. reduced its capital account "by an amount approximately equal to the capital deficit." In the announcement of the plan to the stockholders, the president of the corporation said: "For 1931 the company's net cash income from interest and dividends, after deducting all expenses, but before deducting losses on sales of securities, will amount to substantially more than $1.50 per share. It is proposed to make the reduction sufficient to permit the distribution of $1.50 per share, which, in the opinion of counsel, will be exempt from income taxation as constituting, for tax purposes, a distribution of capital."

Often, a surplus created by capital reduction will not be used to pay dividends, but earnings following the date of the reduction will be used for this purpose. In March, 1932, stockholders of the Electric Bond and Share Co. authorized the exchange of one new common share of stock of $5 par value for each three shares of outstanding no-par stock carried on the books at $10 per share. In other words, the stated capital was reduced from $147,500,000 to $24,585,000, a reduction of 83⅓%. This reduction in common stock capitalization gave the directors sufficient leeway to declare the cash dividend on the preferred shares and the 1½% stock dividend on the common shares.

Other reasons may explain the reduction of stated capital. For instance, the Leslie-California Salt Co. asked its stockholders for consent to reduce its capital and surplus from $3,637,607 to $2,721,845 in order to charge off certain nonoperating items on its balance sheet, such as unused real estate, reserve for leasehold rentals, obsolete and abandoned plant and equipment, etc. Through elimination of these items, for which it had been necessary to make operating charges for maintenance, depreciation, and amortization, the directors estimated that there would be an increase in net earnings of at least $50,000 per annum.

Another explanation was given by the president of the Murray Corp. of America for such action. He asked the approval of the stockholders of a proposal to reduce the stated capital from $22,745,127 to $8,089,120.

It was proposed to write down physical assets by $8,896,654, "to provide for (1) the adjustment necessary to reflect present-day reproductive values; (2) obsolescence of present plant equipment, which is the result of changes in the business of the corporation; (3) changes in economic values due to the fact that the present capacity of the automobile industry is in excess of anticipated needs."

SURPLUS FROM UNREALIZED APPRECIATION.—Unrealized appreciation of capital assets may be used by boards of directors to serve two purposes, each of which affects the surplus account. In the first place, appreciation is assumed at times to offset depreciation. Consequently, surplus may be overstated because of insufficient allowance for depreciation. Depreciation is an accomplished fact, independent of and unrelated to appreciation. Even where it exists it should not be used as an offset to depreciation but should be accounted for separately, although British court decisions explicitly, and a few American decisions by implication, sanction such offset.

In the second place, a corporation that is hard pressed may camouflage its true condition by writing up its assets on the assumption of their appreciation. The main consideration is to eliminate a deficit or to bolster up an insufficient surplus. With no change in liabilities or stated capital, an increase in stated assets accomplishes this purpose.

There may be realized appreciation in the value of any asset. When such increase occurs it is common practice to credit it to the surplus account. Even here the better practice is to carry the increase into a reserve account until such time—if ever—as the asset disposed of should be replaced or the determination be reached that its replacement is not necessary. Then and only then would any residue be properly credited to a surplus account from which dividends might be disbursed, for replacement may absorb all of the appreciation realized from the sale.

Where appreciation of assets is reflected in the surplus account, such increase is usually indistinguishable from other sources of surplus. Occasionally a corporation attaches a descriptive label. The Truax-Traer Coal Co. carried in its balance sheet an item labeled "Appreciated Surplus."

In discussing the attitude of courts toward the declaration of cash dividends from surplus resulting from appreciation of assets, Briggs said (Jour. Acctcy., vol. 54):

> The courts are agreed that realized appreciation of corporate assets is available for dividend purposes, but most jurists have held that unrealized appreciation may not be distributed to stockholders in the form of cash dividends. There are a few decisions which apparently are contrary to the general rule, but these were decided so as to conform to recognized trade practices or to take cognizance of some circumstance peculiar to the particular case. Stock dividends from unrealized appreciation are expressly legalized by statute in six states and the general dividend statutes of the other jurisdictions probably legalize such dividends by implication. No American decision permits a corporation to offset depreciation by appreciation. The general dividend statutes do not expressly permit cash dividends from appreciation, but it has been said that some of them do so by implication. Wisconsin has a statute which expressly permits cash dividends from unrealized appreciation, while Ohio has a statute which expressly prohibits such dividends.

SURPLUS OF A MERGED COMPANY.—Merger is here distinguished from consolidation, meaning the absorption of one corporation by another. The effect of mergers upon surplus may be quite different from the effect of consolidations, to be discussed later.

The exchange which takes place is not an exchange of stock for assets but of stock for stock. The basis of such exchange depends upon bargaining skill and advantage. For example, the book values of stocks of corporation A and corporation B might be $100 per share. It does not follow, however, that the exchange will be made on a share for share basis. Corporation A, for example, might give to the shareholders of corporation B one share for one, two shares for one, or one share for two. Therefore, as a result of the merger, the surplus of corporation A may be increased by the stated surplus of corporation B, by a greater amount, or by a lesser amount. Should corporation B by any chance show a deficit at the time of merger, it is eliminated by the process of merging as a rule. Through the valuation of assets of the corporation acquired, the effect of the merger upon the surplus of the combined corporations can be determined in advance.

SURPLUS IN CONSOLIDATION.—By consolidation is meant the combination of two or more existing corporations to form a new corporation. The most usual method of consolidation is to exchange the stock of a new corporation, X, for the stock of each of the existing corporations, A, B, and C. Asset valuations adopted and the par or stated value of capital stock issued will determine the surplus of the consolidated corporation.

In setting up the balance sheet of corporation X, surplus may be carried as the aggregate of the surpluses of corporations A, B, and C, offsetting deficits, if any, by surpluses. Or if revaluation of assets of the corporations A, B, and C is undertaken at the time of consolidation, the resulting surplus of X might be greater or less than the aggregate of surpluses of corporations A, B, and C. Similar increases or decreases might result from changes in par or stated values of stock used.

SURPLUS OF HOLDING COMPANY.—Where cancellation of stocks of A, B, and C is not effected and X is a holding company, several practices may be followed which affect the surplus account differently. For instance, corporation X may carry the stock of corporations A, B, and C as an investment at cost, and its surplus then depends upon the par or stated value of the shares issued. In this case each subsidiary continues its own set of books and retains therein its own surplus. Dividends are declared to corporation X and reach the surplus of the latter corporation through income In turn, amounts so distributed to the holding company may be distributed by it as dividends to its stockholders. In this case the surplus of the subsidiary is not reflected in the surplus of the parent until and only to the extent that the former declares dividends to the latter. But when a consolidated statement of the parent and subsidiaries is prepared, the excess of the book value of subsidiaries' stocks over cost constitutes a special surplus of the character of capital surplus.

On the other hand, should corporation X carry its investments in the stock of corporations A, B, and C at the values shown by the books of the latter, the result would be in effect the consolidation of the surpluses

of the subsidiary to form the surplus of the parent company. Such a procedure could result in a greater show of combined strength than in the case where such stock is carried at cost. But it might also induce too liberal a dividend policy on the part of the parent company.

In either event the directors of the parent company have complete control over the surplus accounts of the subsidiaries. In some cases, even when stocks of subsidiaries are carried on the books of the parent at cost, this control results in the declaration each year to the parent corporation of a lump sum dividend which absorbs the entire net earnings of the subsidiary for the period covered. Some holding companies set up stocks of their subsidiaries at the values shown on the latter's books at date of acquisition and annually thereafter adjust these investment accounts to conform with the new values shown in the books of the subsidiaries. In such cases the increase or decrease is effected on the books of the parent company through income account and any dividend received by the parent company becomes a credit to the investment account rather than an income or surplus account credit.

There are cases where the subsidiaries at date of acquisition show substantial earned surplus but whose operations result in net losses for some time thereafter. If these subsidiaries pay dividends out of such earned surpluses, and it may be entirely proper for them to do so, the dividends should not be treated as income by the parent company but as a credit to investment account in cases where the subsidiary stock is carried either at its book value or at a cost higher than its book value, and to capital surplus in cases where the subsidiary company stock is carried at a cost which is lower than its book value. In other words, the only dividends paid by the subsidiary company to its parent company which may be properly credited to the parent company's income account are those paid out of income or surplus earned after the date on which the capital stock was acquired by the parent company. Where the net earnings of the subsidiaries are booked by the parent company at the end of each year it is presumed that the amounts will not become legally available for dividend distribution until the net earnings of the subsidiaries have been formally declared as dividends.

SURPLUS IN REORGANIZATION OF SOLVENT CORPORATION.—The term reorganization is here used in the legal sense where one corporation is organized to succeed another. When a corporation succeeds an existing solvent corporation, presumably the net assets of the latter are compensated by the exchange of stock of the former, in which case the stock of the new corporation would reflect the net asset value. The surplus of the new corporation would then depend upon the par or stated value of its capital stock.

In practice an intermediate step is often taken, namely, the exchange of stock of the new corporation for the stock of the old. Later, the stock of the old corporation is cancelled and values are assigned on the books of the new corporation to cover the assets of the old.

Meanwhile, through the exchange of stock for stock, the new corporation may carry as surplus the surplus of the old corporation. Should the surplus of the old corporation be capitalized in the reorganization process, dividends would of necessity be limited to earnings following reorganization.

In not every such case will the surplus of the old corporation be carried over to the new at the same amount. Such reorganizations of solvent corporations are frequently accompanied by either a revaluation of assets or a change in the par or stated values of stock. In either event the amount of the surplus would be affected correspondingly.

SURPLUS IN REORGANIZATION OF INSOLVENT CONCERNS.—Insolvency implies an excess of claims over assets. Insolvency may be partial or total—temporary or permanent. In any event, insolvency suggests the existence of a real though not always a book deficit.

In the process of reorganization of such a corporation, creditors may be asked to make sacrifices. In other words, liabilities are reduced. Should there be no change in stated values of assets, the reduction in liabilities alone could account for the elimination of the deficit and might even go so far as to create a surplus. Some assets may be scaled down. Usually, liabilities would be reduced sufficiently more than asset valuations to accomplish the elimination of the deficit.

Commonly the reorganization of an insolvent corporation is accomplished, in part, by reducing or eliminating the capital stock outstanding at the time of failure. This may be accomplished by a reduction in the par or stated values of the stock outstanding or by cancellation of part or all of the shares then outstanding. Since it is also common in such reorganizations to exchange new stock for bonds or other evidences of indebtedness, the net result of the reorganization may be an increase in the capital account.

Through a combination of these practices most new corporations organized to succeed insolvent concerns start life with a book surplus. It is not uncommon for the reorganization of an insolvent corporation which for years has been on the verge of bankruptcy to amount to a resurrection of such proportions that dividends may begin soon after the reorganization, justified in part by the surplus resulting from reorganization. Should the scaling down of liabilities and the capital account be accompanied by a change for the better in efficiency of management, a real rebirth of the corporation may be the result.

Purposes of Surplus

PURPOSES OF CAPITAL SURPLUS.—A capital surplus is ordinarily part of the permanent investment of the corporation. It is indistinguishable from original investment for many purposes.

Capital surplus may arise from an increase in value of existing assets as well as from an increase in units of property owned. A piece of land, for instance, may increase in value. This increase may be capitalized through revaluation upward of the asset on the books of the corporation. But again, this increase in capital surplus is still a part of the permanent investment and is not properly divisible among the stockholders in the form of dividends, regardless of legal provisions, unless the stockholders are informed that the dividend they are receiving amounts to a return of a part of their investment.

The purposes of capital surpluses are various. Banks have peculiar reasons for capital surplus accumulation. It adds protection to the depositors; adds advertising value to the bank; makes possible larger

individual loans; protects the stockholders against unforeseen emergencies; reduces the danger the bank will be criticized on the ground of insufficient capital. **Insurance companies** accumulate capital surpluses primarily to protect policyholders against possible declines in investment values. The **ordinary industrial corporation** uses a capital surplus primarily to assure that operating losses, asset write-downs, or other developments of the kind will not result in capital impairment and inability to pay dividends.

USES OF EARNED SURPLUS.—Earned surplus is the main source of dividend distributions. Whenever a corporation has accumulated earnings, not needed in the business, they may be distributed to the stockholders in such amounts and at such times as the directors may determine. Intermittent dividends, dependent upon the amount and frequency of net earnings, may be distributed; or the directors may retain in earned surplus an amount sufficient to regularize dividends in spite of the fluctuations of earnings. Sometimes a part of surplus is earmarked for this purpose and labeled "Reserve for dividends."

SURPLUS AS A SOURCE OF CAPITAL.—Whether an established enterprise shall finance further expansion largely from retained earnings, where this can be done without incurring a considerable tax penalty, depends upon many factors:

Rapidity of Capital Turnover.—A railroad, for instance, with a capital turnover once in 5 or 6 years or a hydro-electric corporation with a turnover once in 10 or a dozen years would be limited to exceedingly slow growth if dependent for that purpose wholly upon accumulated earnings.

Cost of Expansion Required.—A manufacturing establishment might add 10% to its capacity by increasing its fixed investment a like amount. A railroad operating at capacity, on the other hand, in order to add 10% to the capacity of a single-track road might need to double-track its line, for which it must add largely to its investment.

Demands of Stockholders for Dividends.—A close corporation with a few stockholders may postpone indefinitely the payment of dividends; whereas a corporation with many stockholders may find the pressure for dividends too great to resist if accumulated earnings are available.

Policy of Contraction.—A concern with wasting assets, for instance, might at times follow a contraction policy, distributing in dividends not only a large share of earnings, but an increasing proportion of original investment as well.

Credit Conditions.—If a corporation is able to secure additional capital in the market to meet its expansion needs, it may more readily distribute its surplus through dividend declarations. Otherwise, it might be dependent upon its own resources for expansion, thereby limiting dividends.

Conservatism of Management.—The policy of expanding primarily through reinvestment of earnings, rather than outside financing, is sometimes called the "New England" method, because it was popular among old-established businesses in that part of the country.

ABSORPTION OF LOSSES THROUGH SURPLUS.—Few businesses can operate if dependent for their existence upon continuous profits. Seasonal and/or cyclical losses are to be anticipated. In the absence of a surplus these would result in capital deficits and even at times in actual insolvency. A sizable surplus carried over from prosperous times is a convenient cushion for the absorption of such losses. Creditors are very exacting in comparing net worth to indebtedness in times when losses are apt to occur. A concern which can absorb losses without impairment of capital is far more likely to receive support from creditors.

WRITING OFF INFLATED ASSETS AGAINST SURPLUS.—A young business enterprise, not too strong in its own right, may find it expedient to reflect its optimism about the future by inflating its assets, particularly its goodwill account or other intangibles. If the optimism is justified by future profits, the sober second thought of the management may determine that, the expediency having passed, intangibles should be written off. The surplus account serves as a convenient sponge for **absorbing the "water"** in inflated assets.

INACCURATE ACCOUNTING ESTIMATES.—The surplus account may serve as insurance against inaccuracies in making provision for bad debts, depreciation, and like charges which must necessarily be estimated in advance. Due to unforeseen contingencies estimates that appear conservative when made may be inadequate.

In 1930, the Continental Motors Corp. hired outside accountants to make recommendations concerning the accounting procedure followed by their corporation. As a result of their recommendations, the surplus was reduced by $4,583,970 to provide for the following adjustments:

1. The elimination of all special tools, dies, patterns, etc., except those actually chargeable to customers or in use in connection with present contracts. These were carried now only at values which permitted full recovery during the anticipated period of the sales schedules.
2. The elimination from the inventory of all known obsolete items. Provision was also made for slow-moving stock and a general inventory reserve was set up.
3. A substantial reduction in the value of used tools on hand.
4. The elimination of development and other expenses previously set up to be charged against future operations, excepting only ordinary prepaid items and the expenses arising in connection with the single-sleeve valve motor.
5. An increase in the allowances for doubtful accounts and adjustments of accounts receivable to a conservative basis.
6. Provision for loss on machinery determined to be obsolete.
7. The creation of a general reserve for contingencies.

In addition to these items, depreciation charges were increased and a more conservative basis of accounting for repairs and maintenance was adopted. Among other changes considered was the elimination of the item of goodwill as carried on the books, but inasmuch as a change in the capital structure might be required to bring this about because of the inadequacy of surplus, the board decided to give the matter further consideration before taking action.

Reservations and Appropriations of Surplus

Designation of portions of surplus for specified corporate purposes may be desirable before dividends are given consideration. These reservations or appropriations of surplus are the subject of this subsection.

NATURE OF THE APPROPRIATION.—When a board of directors determines the necessity for a surplus appropriation and the amount needed to meet the specific purpose to be served, a resolution is passed reducing surplus by the designated amount and segregating it on the books in a special account whose title indicates its purpose. Some of these appropriations are regularly provided for in the accounting practices of the corporation authorized by a general mandate from the board of directors.

PURPOSE OF SURPLUS RESERVES.—The appropriation of a part of surplus for a specific purpose accomplishes two things: (1) it calls attention to the need for which the appropriation is made; (2) it prevents the use of surplus so impounded for dividend declarations or repurchases of its stock by a corporation. The board of directors, however, might later transfer back to surplus such reserves and thereafter declare dividends from them.

The latter consideration is particularly important. Stockholders as a class look with longing eyes upon a surplus account. Instead of viewing it as an all-inclusive umbrella protecting their corporation against the vicissitudes of the weather, they are more apt to visualize it as an accumulation of unnecessary profits withheld from them by a too conservative board of directors. While recognizing the desirability of providing for the rainy day, they are apt to underestimate the size of the downpour that may threaten their corporation at some future time.

Even directors are at times misled by the size of an **all-purpose surplus.** It is therefore the part of wisdom to make somewhat liberal appropriations of surplus, retaining in this account only such amounts as may be classed as **free surplus**—with no probable demand against it other than that of the stockholders for dividends.

This recommendation is made merely as a matter of accounting technique. The first and most important consideration is the accumulation of a surplus. Its subdivision is a matter of mechanics and serves only to emphasize the demands upon it. If the directors and the stockholders recognize fully these demands and stand ready to meet them before dividends are distributed, no surplus reserves are necessary. Experience does not justify the expectation that directors or stockholders, particularly the latter, will always recognize such demands or stand ready to give them precedence over dividends.

SURPLUS RESERVES DISTINGUISHED.—The word "reserve" is used in accounting and finance to represent various and even conflicting ideas.

1. Careful distinction should be made between a surplus reserve and an allowance or contra account. Regular allowances for depreciation, for instance, are proper charges against earnings and should never reach the surplus account. It may be necessary on occasion to supplement

this deduction from earnings with an appropriation from surplus when it is found that the regular allowances have been insufficient to reflect the full requirements of a situation. But regular depreciation and other valuation allowances should not be confused with surplus reserves.

Accrued liabilities are sometimes designated as "reserves." If the liability is known, definite in amount, and arises out of the usual operations of the enterprise, such as the regular tax obligation, it has no relation to surplus reserves but again is merely a charge against the earnings of the corporation, set up on the books of the corporation as a separate account to avoid its confusion with surplus.

2. Surplus reserves should be distinguished also from reserve funds. The latter are carried as assets while the former are set up on the equities side of the balance sheet. A fund is an amount of money or its equivalent that is distinguished from other assets in order that it may be available when needed to pay off a liability, replace another asset, or for any other purpose. Such funds may be accumulated systematically, as sinking funds set up to retire bonds, or cash may be set aside out of profits in occasional lump sums to meet some unusual demand such as the replacement of a particular capital asset.

FINAL DISPOSITION OF SURPLUS RESERVES.—The final disposition of all surplus reserves—after they have served their purpose—is often their return to the surplus account. In reality they are a part of the surplus, temporarily earmarked to prevent their misappropriation for purposes other than those already provided for. To prevent use of this surplus for dividends, however, it may be retained in a reserve, such as "Reserve for Expansion," or capitalized by the issuance of a stock dividend.

OBJECTS OF APPROPRIATIONS—RESERVE FOR CONTINGENCIES.—A contingency may be defined for this purpose as an event whose occurrence is not only possible but probable, but cannot be foretold with certainty either as to time, intensity, nor even assurance of happening. When Congress works on a new tax law, for example, a corporation may provide not only for known taxes but for those that may be levied and assessed if the pending bill passes.

Concerns employing men in hazardous occupations may anticipate accidents which will cost money in excess of provisions for insurance. This is a contingency difficult to forecast but one which might be embarrassing to meet from current earnings only.

It is frequently necessary to set aside contingency reserves for pending litigation. Where patents are involved, current royalties received may be set aside in a contingency reserve pending a court decision.

Contingencies against which a corporation might make appropriations of surplus are many and varied. One which is peculiar to companies doing a large foreign business was reflected in the balance sheet of the Texas Corp. for 1931 when it set up a reserve of $4,558,954 to provide for possible losses due to exchange fluctuations affecting the values of current assets of foreign subsidiaries.

Some investment trusts have introduced on their books reserves for investment depreciation to provide for possible declines in the values of their holdings. In commenting on the use of such a reserve by the Vick Financial Corp., its president said: "The reserve for investment

depreciation, created under the recapitalization plan, has enabled us to make advantageous changes in our holdings without impairing our earned surplus, because the resulting losses from the sale of securities have been charged against such reserve."

SINKING FUND RESERVES.—Sinking fund reserves are commonly employed, though there is no unanimity of opinion concerning their necessity. Those who oppose appropriation of surplus to form a sinking fund reserve argue as follows: "(1) The extension of a debt not being a loss or an expense, the income accounts should not be affected by the sinking fund; (2) the reserve furnishes a double security for bondholders, which is uncalled for; (3) the mortgage securing the bonds is a lien on the property itself, and not on the income; (4) there can be no guaranty that the reserve will ultimately be used for the purpose indicated." (See Reiter, Profits, Dividends and the Law.)

Those who favor the reserve, on the other hand, think it a necessary check upon possible reckless dividend policies. Some go so far as to contend that the reserve is more important than the cash fund in protecting bondholders. Paton and Stevenson (Principles of Accounting) state: "From the standpoint of protection to the bondholder the appropriating of surplus as a special sinking fund reserve is probably more important than the setting up of special funds. If surplus is specifically appropriated, or labeled, so that it cannot become the basis for cash dividend declarations, this means that the stockholders' equity is being increased with a corresponding accumulation of assets. It is this process which insures the widening of the margin that protects the bondholders' equity."

As a matter of fact, the only way by which the bondholders can be adequately protected against the bad faith or bad judgment of the directors and be fully assured of the payment in cash of their bonds when due is to provide in the bond indenture for a sinking fund to be administered by a trustee not directly interested in the affairs of the issuing corporation and to make similar provisions in the same indenture for a sinking fund reserve to make sure that no other claimant absorbs that part of the surplus.

RESERVE FOR ADDITIONS, BETTERMENTS, OR IMPROVEMENTS.—Whenever a board of directors decides to use accumulated earnings to increase its permanent investment in property, it should allocate to special reserves the amount so determined. Safeway Stores, Inc., for instance, carried in its balance sheet for June 30, 1931, a reserve of $4,500,000 for "coordination of warehouses." Such earmarking of a part of surplus leaves no doubt of the intent of the directors and prevents confusion with other uses of surplus. The physical change in the assets of the corporation may represent, in part, maintenance and repairs; to that extent it should be a charge against earnings or depreciation reserve. Only that part which represents an increase in investment should be deducted from surplus.

Railroads are sometimes required to bear at least part of the expense of eliminating grade crossings. Telephone companies, on occasion, are required to bury their wires in underground conduits. Such improvements add little if anything to operating revenues and diminish operating expenses less than the carrying charges on the improvements.

Anticipation of such requirements by the means of reserves therefor might save such corporations financial embarrassment at times.

RESERVE FOR INSURANCE.—Any corporation is apt to suffer loss of property values through fire, flood, windstorm, or other natural causes. Protection against a part of such loss may be secured through the purchase of insurance. Not all hazards are known. Not all known hazards are insurable. Few, if any, insurance policies afford full protection against possible property loss. Hence, whether a corporation carries its own insurance or buys all the insurance available to it, there will be an **unprotected hazard** which should be covered by a special appropriation of surplus for that purpose.

Aside from loss to property values, most corporations face other risks requiring insurance such as **workmen's compensation** and public liability for accidents on the premises or acts of an employee of the corporation. If a corporation decides to carry self-insurance—in states where this is permitted—or if it cannot buy full coverage by the payment of premiums, provision should be made to meet these hazards. "Overinsurance" is a reserve against contingent losses that cannot be estimated in advance.

Unless insurance reserves are patently excessive, they cannot be transferred back to surplus until the enterprise is liquidated, and hence they are not actually a part of net worth.

RESERVES AGAINST INVENTORY DECLINES.—Conservative accounting practice prices inventories at cost or market, whichever is lower. This procedure takes a known loss but refuses to record possible profit until it is realized. The **unknown loss,** due to a decline from present values before inventories can be converted into cash, cannot be recorded because it is unknown. It can be anticipated by a reserve account. If the best judgment of the directors indicates a loss, it should be reflected in appropriation of a part of the surplus sufficient to absorb it. Since such losses may occur when they are least expected, a fairly liberal reserve for this purpose from surplus may be desirable in industries where prices fluctuate widely. Where last-in first-out is the valuation basis, however, such reserves are not required as a rule.

RESERVES AGAINST INCREASED DEPRECIATION.—Depreciation of fixed assets may be more rapid at times than is anticipated by the depreciation reserves. Under such circumstances it may be wise to set up from surplus a reserve for such additional depreciation. The Walworth Co., in addition to annual amortization charges amounting to $1,900,000 from 1925 to 1931, set up in the latter year out of surplus a special reserve of $1,200,000 for amortization of plant and equipment. While appropriated from surplus, such sums are not really a part of net worth, unless it is found later that the added reserve is not actually required.

RESERVE AGAINST OTHER LOSSES.—History teaches that fluctuations in business and profits are to be expected: it does not tell when the changes will occur. During prosperous years a part of surplus may be earmarked as a reserve to carry the corporation over the lean years. This has two advantages: (1) It prevents the dissipation of surplus during the prosperous years which might cause embarrassment

during lean years. (2) It calls attention of the directors of the corporation to the prospect of lean years.

So long as business men feel that a large surplus—even though unappropriated—is necessary to protect the future of their corporation, in effect they have set up a reserve against business uncertainties. The difficulty arises when, at the peak of prosperity, they drop their guard, dissipate such surplus, and find themselves caught in the next period of depression with insufficient resources to see it through. Not only is surplus charged with the responsibility of providing against possible future losses, but overlooked losses of past years are also deducted from surplus when discovered. In 1930, the American Woolen Co. set up out of surplus special reserves amounting to $1,577,091 "to cover items applicable to operations of previous years." Since this action was taken on the advice of newly appointed auditors, it appears that the accounting procedure of former years was faulty. This was not a true reserve, however, and should have been called an allowance or provision for known past losses or expenses.

DIRECTORS' POWER TO ESTABLISH RESERVES.—In general, state corporation laws give boards of directors full power to establish such reserves as they see fit, unless otherwise provided by charter or by-laws. In a very few states, however, the directors are required by law to make annual distribution of profits in excess of a reserve for working capital, unless otherwise authorized by charter or by-laws. Occasionally authority of directors over surplus reserves is modified or limited by by-law or charter provisions.

One such limitation, for example, reads as follows:

> Reserve Fund. No dividend to exceed six per cent per annum shall be declared by the Board of Directors until there shall have been reserved from surplus profits, a fund of not less than One Hundred Thousand Dollars, such fund to be designated "Extension Fund" and to be used for the extension or enlargement of the business of the Company and the betterment of its plant, or for such other connected purposes as may be deemed necessary or advisable by the Board of Directors. (By-laws of Ogden Iron and Steel Co. Quoted in Conyngton, Bennett and Pinkerton, Corporation Procedure.)

Surplus Adjustments for Extraordinary Profits and Losses

ORDINARY OPERATIONS.—During the ordinary course of business operating income is credited and operating losses are charged to the operating income account. One function of the operating income account is to show the results of normal operations during any given period.

EXTRAORDINARY GAINS OR LOSSES.—Gains or losses not resulting from normal operations of the business, unless they are very large, are recorded as special items in the current income account. Very heavy gains or losses may be handled as surplus adjustments, particularly if they have their source in a previous accounting period. To make current operating accounts include unusually heavy gains or losses would give a wholly distorted picture of what the corporation is doing in any one year. Examples of such are:

1. Appraisal adjustments—either large increases or large decreases.
2. Heavy fire losses not covered by insurance.
3. Additional large federal tax assessments or refunds.

ADJUSTMENTS MADE BY DIRECTORS.—Generally speaking, boards of directors have authority to make adjustments in the surplus account so long as the surplus is large enough to absorb the losses suffered. Exceedingly heavy losses beyond all hope of recovery may become a direct charge against the capital stock account after the surplus is exhausted. But changes in the capital structure, such as reduction in the par or stated value of stock or in the amount of stock outstanding, require the sanction of stockholders for the requisite charter amendment.

Improper Surplus Policies

SECRET RESERVES.—The secret reserve is a favorite cache for hiding profits and thereby understating surplus. The use of secret reserves may be due merely to overconservatism on the part of directors who think the long run interests of the stockholders may be best served by keeping them in ignorance of the true state of their corporation's progress: or it may be due to ulterior motives of those who use their "inside" knowledge of the status of their corporation's affairs for private profit. Secret reserves arise from:

Undervaluation of Assets.—Carrying **goodwill, patents, and other intangibles** at the nominal figure of $1 is recommended as conservative accounting. It results in a secret reserve of unknown and perhaps unknowable proportions. Financial institutions which write down the value of their real estate to a nominal amount create a similar secret reserve.

Overstatement of Liabilities.—Contingent liabilities that are carried as actual liabilities, particularly where they are carried on the books at more than the corporation will probably be called upon to pay, result in secret reserves. Excessive charges for depreciation; omission of accrued assets or prepaid expense; improper charges of capital expenditures to operating revenue—all result in secret reserves.

Omnibus Reserves.—Setting up of omnibus reserves without having definitely in mind specific purposes which they may be called upon to serve produces the same results. These reserves may be labeled variously "Contingency reserves," "Replacement reserves," "Reserves for other purposes."

TRANSFER TO SURPLUS.—At the discretion of boards of directors the contents of secret reserves may be transferred to surplus. This is accomplished by appraisal of assets to show they are undervalued or that a liability item in the balance sheet is no longer needed or is too large. Such amounts may be restored to surplus either for the purpose of absorbing losses or to make dividend declarations possible. This restoration is legal and frequently advisable as a matter of good business policy. It is the setting up of secret reserves in the first place that may be open to serious question.

OVERSTATED SURPLUS.—Overstated surplus may result from the same conditions and motives which produce understated surplus—economic changes, ignorance of accounting and financial processes, or intent to deceive.

Overvaluation of Assets or Undervaluation of Liabilities.—The former particularly is so common that in reading any published balance sheets the analyst immediately raises the question: How much must I discount the stated values of asset items? Understatement or omission of liabilities is also common, particularly contingent liabilities.

Common Methods of Overstatement.—Methods of overstating assets and understating liabilities include insufficient charges for depreciation, capitalizing repairs and maintenance which should be charged to revenue, omission of accrued liabilities or prepaid income, treating of consignments as completed sales.

Overvaluation of Assets Can Be Corrected by Appraisal.—The surplus account should be used as the sponge to absorb the water in overvalued assets through charge-offs. Failure to make this correction is misleading to stockholders and creditors; may lead the directors of the corporation to pursue disastrous financial policies; and may involve the corporate management in legal difficulties should it be claimed that dividend payments have been improper.

In the depression of 1929–1933, many boards of directors, believing that the valuations of 1929 were no longer representative, made efforts to bring book values into line with actual values. Where the surplus account was not large enough to bear the brunt of the reappraisal processes, the capital account was asked to share its part of the burden.

If past practices in this regard have resulted in omission or undervaluation of liabilities, the only remedy is to rewrite the balance sheet to represent the true condition of the corporation. If this restoration process can be accomplished by charges to surplus, so much the better; if not, not only is surplus overstated but the capital account also.

Capital Deficits

The direct opposite of a surplus is a deficit, which is sometimes spoken of as a negative surplus. In other words, whenever the usual formula for finding the amount of the surplus—assets minus liabilities and capital stock—is used, and the result is a negative one, such result is a deficit instead of a surplus.

HOW DEFICIT ARISES.—A deficit may arise from any one of several sources.

1. **Operating losses** are charged to the surplus account. If there be a surplus at such time, it will absorb the losses until it is exhausted. Thereafter, should the losses continue, the surplus becomes a deficit. Should a new corporation which has no surplus begin operations with a loss, a deficit will result immediately.

2. **Excessive dividend payments** may so deplete the surplus that any subsequent loss from operations or from other cause will quickly turn the little remaining surplus into a deficit.

3. **Spurious book assets** sometimes give rise to a surplus. Should these be written off a deficit may follow. Due to insufficient depreciation charges or otherwise, other assets may become inflated. If these are written down to their true value a deficit may replace a surplus.

4. **Unexpected liabilities** against which no reserve has been set up may cause a deficit. Should the corporation, as defendant in a suit for heavy damages, lose its case, the consequence might be to change a surplus to a deficit when the damages are reflected on the books of the corporation.

5. **Adjustment of accounts.** Whenever a corporation which has understated its liabilities decides to set them up on the books at their true amounts a deficit may result.

6. **Accidents** sometimes cause destruction of property where the resulting loss is not fully covered by insurance. Should surplus be inadequate to absorb such loss, a deficit results.

SHOWING DEFICIT ON BALANCE SHEET.—There are various ways of showing the deficit on the balance sheet.

On Assets Side.—It is often shown on the assets side. In this case the most intelligible label to give to it is simply to call it a "Deficit." Other labels, less easily interpreted by the layman, are "Surplus account," "Profit and loss," etc. To the reader of a balance sheet unacquainted with accounting processes, the appearance of a "Surplus account" or a "Profit and loss" item as an asset might be distinctly misleading.

On Equities Side.—The proper side to show "deficit" is the equities side of the balance sheet, and the most intelligible entry is a deduction from the capital stock item. Such an entry indicates that the capital has been impaired by the amount of the deficit. Other ways of recording the deficit on the equities side of the balance sheet are to show it under a debit label of "Surplus account," "Profit and loss," etc. Sometimes a deficit has been hidden in a blanket item labeled "Capital stock and surplus." In this case the deficit is deducted from the capital stock to give a net figure which is carried under the above label. Unless the reader knows the stated value of the capital stock alone, he may be misled by the label.

HOW TO ELIMINATE A DEFICIT.—Among the most common methods for eliminating a capital deficit are:

Accumulation of Earnings.—When the conditions which give rise to a deficit have passed and the corporation again makes a profit, such profit may be used to absorb the deficit. Since dividends must generally be suspended as long as the capital is impaired, the accumulation of profits will, in time, eliminate the deficit completely and again create a surplus.

Reduction of Capital.—Elimination of a deficit out of earnings is a slow process. Suspension of dividends may be for a very long period if the deficit is absorbed only through accumulation of profits. An effective way of speeding up deficit elimination is a reduction of the stated value of the capital stock.

1. If the stock has a par value, the reduction may be accomplished either by a reduction of the par value, the number of shares re-

maining the same; or, by a reduction in the number of shares, through surrender by the stockholders of a part of their holdings, the par remaining the same; or by a reduction in both the number of shares and the par value.

2. In case the stock is no-par, with stated value, reduction may be accomplished by a reduction in the stated value per share, in the number of shares outstanding, or both.
3. If the stock is no-par, without stated value per share, reduction of the capital stock account may involve legal difficulties. To avoid these, a change to low-par stock has often been effected.
4. This reduction in the capital stock account to the advantage of the surplus account may be accomplished also through the substitution of a new company, whose capital stock account shall be less than that of the old company. The difference will be credited to the surplus account.

Remission of Debts and Stock Donations.—A deficit may be eliminated also by the remission of debts, including bonds. Should creditors be induced to sacrifice all or a part of their claims against the corporation, the resulting advantage would accrue to the surplus account and aid in changing a debit into a credit balance. Inside stockholders sometimes find it expedient to donate a part of their stock to the corporation for the purpose of eliminating a deficit. They may attach a string to their donations by receiving an option to buy back such stock during better times at a nominal figure. The same privilege may be given to bondholders who remit a part or all of their claims.

Repurchase by a Corporation of Its Bonds or Stock at a Discount from Face or Capital Value.—This has been especially common in depression periods when such securities can be bought at quite low prices. A surplus created in this way may not be available for dividend payments under statutory or regulatory restrictions.

Assessments.—Assessments of stockholders are occasionally used to eliminate a deficit. This is possible if the statute or charter under which the corporation operates permits such an assessment. Without such permission, an assessment may be levied with the consent of the stockholders. If this seems the only means of salvaging their investment, they may in special situations consent to it.

SECTION 20

INTERCORPORATE RELATIONS

CONTENTS

PAGE

Business Expansion

Pattern of expansion 829
Many businesses forced to expand.. 829
Major decisions involved in broadening activities 829
Motives for expansion 830
Development of a sound expansion policy 830
Direction of expansion 831
Factors determining need of financing 831
Expansion and working capital needs 831
Internal expansion 832
Expansion by combination 832
Advantages of combinations 833
Economic motive for business combination 833
Practical realities of business combinations 834

Business Combination

Planning for future combinations.... 835
Considerations in selecting the form of business combination 836
Ease of effecting the combination.... 836
Ease of financing 836
Degree of management control 836
Flexibility and permanence 836
Taxation 836

The Purchase of Assets

When purchase of assets is used 837
Legal aspects of assets purchase.... 837
Procedure in purchase of assets 838
Preliminary negotiations 839
Tentative agreement of sale 839
Approval of directors 839
Approval of stockholders 839
Transfer of assets and consideration 840
Distribution of consideration 840
Paying off dissenting stockholders.. 840
Dissolution of selling company 840
Statutory and charter provisions 840
Position of purchasing company 841
Position of selling company 841
Statutory or charter limitations 841
Stockholders' consent to sale of assets 841
Rights of creditors in sale of assets.. 843
Mortgage liens of the selling company 843

PAGE

Subjects of sale 843
Liabilities of seller 844
Provisions regarding consideration .. 844
Preferred stock of selling company.. 845
Authorization of stock for expansion purposes 846
Advantages and disadvantages of purchase of assets 846

Consolidations and Mergers

Definition of consolidation 847
Charter rights of consolidated companies 847
Power of corporations to consolidate 847
State laws governing consolidations .. 848
What corporations can consolidate 848
Effect of consolidation 849
Procedure in effecting consolidation 849
Rights of dissenting stockholders .. 850
Rights of creditors in consolidations 851
Treatment of mortgage liens 851
Position of unsecured creditors 851
Mergers 852
Power of corporations to merge 852
Merger procedure 852
Advantages and disadvantages of consolidations and mergers 853
Terms of consolidations and mergers 854
Examples of mergers and consolidations 854

Financial and Accounting Factors in Combinations

Valuation problems in combinations.. 856
Accounting analysis 856
Engineering analysis 856
Economic analysis 856
Methods of valuation 856
Valuation based on capitalized earning power 857
Goodwill or going concern value.... 858
Market value 858
Investment value 858
Book value 858
Cost less depreciation 859
Reproduction cost 859
Substitution cost 859
Accounting problems in asset transfers 859
Valuation of plant and equipment.. 860

PAGE

Accounting problems in asset transfers—*Continued*
Effect of plant valuation on production costs 860
Valuation of intangible assets 861
Valuation of tangible assets of failing concern 861
Valuation of current assets 861
Effect of merger or consolidation on surplus 862
Financial steps in promoting a combination 862
Determining basis of share exchange 863
Relative earnings per share 863
Relative book value per share 863
Relative net working capital per share 863
Relative market value per share 863
Hidden assets 863
Strategic elements 863
Relative strength of management.. 864
Bargaining factors 864

Combination by Lease

Leases as a means of expansion 864
Lease agreements 864
Status of lessor corporation 865
Corporate existence and acts of lessor 865
Power of corporations to lease assets 865
Statutes governing lease of assets 866
Industrial leases 866
Railroad leases 867
Fixed rentals 867
Guaranty of rental 867
Difficulties in drafting equitable lease agreements 867
Mergers to end leases 868

Holding Companies

Use of holding company method of combination 868
Definition and types of holding companies 868
Industrial holding companies 869
Holding company with one subsidiary 869
Holding-operating companies 870
Laws respecting formation of holding companies 870
Trusts as combination device 870
Control through voting trusts 871
Statutes permitting holding company control 871
Acquisition of stock control 871
Purchase for cash 871
Acquisition of control through exchange of stock 872
Dealings between parent and subsidiary 872
Financing subsidiary's capital requirements 872

PAGE

Advantages and disadvantages of the holding company device 873
Advantages of holding companies .. 873
Disadvantages of holding companies 874
Maintaining corporate existence after transfer of assets 874
Creation of subsidiaries by parent company 875
Subsidiaries organized for legal reasons 875
Subsidiaries to facilitate management and operations 875
Contract evasion through subsidiaries 876
Subsidiaries to secure goodwill 876
Foreign subsidiaries 876
Subsidiaries to limit parent company's liability 877
Intercorporate readjustments 877
Abuse of parent-subsidiary relation.. 877
Protection afforded minority stockholders by courts 877
Instrumentality rule 878
The deep rock doctrine 879
Public utility holding companies..... 879
Unsound financial practices 880
Regulation of public utility holding companies 880
Registration of utility holding companies 880
Regulation of new security issues of utility holding companies 880
Acquisition of securities and properties 881
Simplification and integration of holding-company systems 881
Supervision of intercompany loans, dividends, security transactions, etc. 882
Periodic reports and accounts and records 882
Regulation of interstate electric utility companies under the Federal Power Act 882
Use of Massachusetts trust 883
Regulation of other holding companies 884

Other Types of Corporate Combinations

Cartels 884
Types 884
Domestic and international cartels 885
Webb-Pomerene Act associations .. 885
Advantages and disadvantages of cartels 886
Trade associations 886
Functions of the trade association.. 886
Community of interest 887
Mutual stock ownership 888
Jointly owned subsidiaries 888
Voluntary chains 888

SECTION 20

INTERCORPORATE RELATIONS

Business Expansion

PATTERN OF EXPANSION.—Business organization in the United States has been characterized by the development of large corporations which control a substantial proportion of business wealth. Large corporations and corporate groups have come into existence as a consequence of two basic patterns of expansion: (1) internal growth, and (2) combination. This section is concerned with a discussion of the various methods utilized in effecting business combinations.

Many Businesses Forced to Expand.—Whether a business expands or not will depend on the character and policies of its management and on the opportunities it may have for extending its operations. From lack of enterprise or incompetence it may fail to take advantage of excellent opportunities for profitable expansion. On the other hand, from deliberate choice the management may prefer to keep within its present scale of operations and earnings. Many small concerns, particularly in the merchandising field, have elected to remain small and are not interested in expansion or combination.

However, numerous business concerns have found it difficult to stand still and yet hold their own with competitors. They have been forced either to expand or to sell out to larger concerns. To secure a larger sales volume so as to improve utilization of plant facilities and reduce costs, expansion of marketing territory becomes necessary. Similarly, a business may find it necessary to add to its line of products so as to reduce unit sales costs to the level of competitors. Rising costs tend to force expansion to secure the offsetting economies of large-scale operation. An era of prosperity places a premium on the enlargement of capacity. Personnel considerations may stimulate expansion, for a capable management of a smaller concern may want to improve opportunities of key employees to secure larger incomes through expansion of the business, and if such a policy is not adopted these individuals may leave for jobs in a larger and more aggressive business. Every business, to remain successful, may have to formulate an expansion policy and be ready to seize opportunities to grow when presented.

Major Decisions Involved in Broadening Activities.—Management may make blunders in day-to-day operations, but proper decisions as to the wisdom of expanding may readily offset these mistakes. On the other hand, efficiency in routine operations cannot compensate for one erroneous major decision as to increasing the size of the business when

economic conditions do not justify expansion, or the failure to expand when changing economic or competitive conditions make this necessary. For example, when the automobile and good roads threatened to bring better retail stores within reach of practically every consumer in the United States, Sears Roebuck was one of the first mail-order corporations to see a possible leveling off or decline in its business. In recognition of this change in economic conditions Sears Roebuck began to build stores of its own and acquire existing retail outlets. Another example is found in the acquisition of Grosset & Dunlap, publishers of reprint books, by a combination of Random House, Book-of-the-Month Club, and Harper Brothers. These concerns were not particularly anxious to expand in this direction, but expansion was apparently necessary to protect sales volume when public demand had shifted to reprints.

MOTIVES FOR EXPANSION.—Some of the more important motives for expansion are:

1. To maintain the concern's relative position in an industry.
2. To reduce production costs through larger-scale operations.
3. To reduce costs of distribution.
4. To take advantage of greater technical skill, research facilities, and better credit of larger companies.
5. To eliminate destructive competition.
6. To attempt price control through control of supply.
7. To broaden markets or to stabilize the business by adding offsetting products.
8. To facilitate a "sell-out" of close corporations through combination and public financing.
9. To enable embarrassed companies to carry on through combination with stronger and better managed companies.
10. To provide opportunities for public sales of securities.
11. To satisfy the desire of executives to expand.

It will be observed that the first seven motives are primarily economic in nature. They reflect the desire to increase the profits of the business, or at least to conserve or stabilize profits. From an economic viewpoint expansion can be on a sound basis only if the rate of return on the additional capital investment is at least equal to that obtainable from investment in comparable business enterprises.

DEVELOPMENT OF A SOUND EXPANSION POLICY.—Whether expansion will be carried on by internal growth or combination will be determined largely by the financial position of the company, transportation costs, the most economic size of producing unit, location of markets, the extent to which the territory is already well served by existing units, and opportunities for acquisition of desired facilities. To some degree the pattern which business expansion takes may be simply a matter of accident or sudden opportunity rather than the result of carefully balanced judgment. Regardless of the pattern, every well-managed corporation must develop a sound expansion policy. Such a policy should embrace the following objectives:

1. Improve existing products.
2. Improve and expand distribution facilities.
3. Increase service to consumers.
4. Widen uses for products.
5. Develop new products.

6. Conduct research on possible future demands.
7. Discover and study combination opportunities.
8. Conduct research and make evaluations of new inventions, processes, etc.
9. Promote development of new markets.
10. Effect a full utilization of manufacturing capacity.

DIRECTION OF EXPANSION.—Irrespective of whether expansion is primarily "external" or "internal," there are three main directions that the expansion may take: (1) horizontal, (2) vertical, and (3) circular. **Horizontal expansion** takes place at the same stage of the economic process. Thus, a combination of manufacturers of the same line of products, or of jobbers, constitutes horizontal expansion.

Vertical expansion involves integration of two or more successive stages in the economic process from raw material production to sale of the finished product. The United States Steel Corp. is an example of vertical expansion. Through its subsidiaries, it is engaged in mining, processing, transportation, manufacturing, and distribution. **Circular expansion** involves the addition of units which produce different products that can be distributed through the same channels, or the combination of enterprises using the same research facilities. Outstanding examples are Standard Brands, which combines manufacturers of various products sold through grocers, and E. I. du Pont de Nemours & Co., Inc., which expands in almost any direction its research laboratories' findings point to.

FACTORS DETERMINING NEED OF FINANCING.—The need of financing in expansion depends upon the amount of cash derived from depreciation, retained earnings, and surplus working capital in relation to the new capital required. Where public financing is practical, or combinations can be effected by exchange of stock, there is added incentive to expand aggressively as opportunity offers.

In the railroad, public utility, and other heavy industries, where a heavy plant investment is required and the rate of earnings on capital investment is relatively low, expansion almost always results in financing. In the manufacture of aluminum a large supply of cheap electrical power is needed, so that a heavy investment in hydro-electric properties has been necessary. The Aluminum Co. of America has never paid large dividends on its common stock, using earnings for expansion. Additional capital has been obtained through the sale of its preferred stock and bonds.

Expansion and Working Capital Needs.—Where expansion is the result of growing demand for a company's products, working capital needs usually expand at the same or a declining ratio to sales. Distributing facilities and warehouse inventories may be used to handle a larger volume up to a point. Horizontal expansion through combining with other companies operating in the same field and in overlapping territories may result in a decline in working capital needs in relation to sales. On the other hand, in vertical integration working capital requirements expand at an increasing ratio to sales. This is most clearly demonstrated when a distributing company takes over a manufacturing concern supplying it with goods, or when a plant is built to supply goods formerly bought in the open market. Under such conditions, sales may

not expand at all, although working capital may have to be increased not only to provide inventories of raw material and goods in process, but also to provide a reserve against the risk of loss through the necessity of carrying these larger inventories over a longer period of time. Risks are substantial in industries where raw material cost is large in proportion to total costs and where prices of materials are subject to wide changes, as in cotton goods manufacture, sugar refining, and meat packing.

INTERNAL EXPANSION.—The more important advantages of expanding internally rather than by acquisition of other enterprises are:

1. Avoid liability to minority stockholders or creditors of acquired companies.
2. Avoid need for obtaining stockholders' consent to combinations.
3. Avoid valuation problems.
4. Avoid alterations to make new facilities suitable.
5. Embody latest advances in newly built facilities.
6. Forestall construction of like plant by competitor.
7. Take advantage of low-cost sources of raw material, power, and labor supply.
8. Entrench company as low-cost producer in its industry.

If new plant construction is not paid for out of reserves and earnings, new financing will be necessary. Moreover, construction is a comparatively prolonged process, and meanwhile there is not only a loss of return on capital tied up but also the possible obtaining of certain competitive advantages by rival concerns. Furthermore, time and money are required to place a new plant in operation. Personnel must be engaged and trained, and other expenses incurred before actual commencement of operations. If a new line of business is being entered, advertising and other expenditures must be made to develop the market and establish goodwill in the trade. Lastly, additional working capital must be obtained to support additional inventories of raw materials—on hand or receivable—goods in process, and finished goods.

EXPANSION BY COMBINATION.—Expansion by combination takes a variety of forms. Instead of constructing a new plant, a concern may acquire one by purchase or merger. It may lease quarters, thus dispensing with the necessity of building for itself.

The generic term "combination" covers all the methods whereby two or more existing businesses are combined in whole or in part. In addition to combinations, businesses may gain some of the advantages of joint ownership through other forms of intercorporate relations.

The **chief types of intercorporate relations** are:

1. Purchase of all or part of the assets of another concern.
2. Consolidation, or the fusion of two or more existing corporations into a newly organized corporation.
3. Merger, or the absorption of one or more existing businesses by an existing corporation.
4. The lease of the assets and business of another concern.
5. Holding company, or the purchase by one corporation of a controlling stock interest in one or more other corporations.
6. Community of interest, or the subjecting of separate corporations to the same control by means of common ownership of stock by one person or a small number of persons who are bound together by common interest. Similarly, two or more corporations may own one

another's stock, and the resulting harmony of interest may be made even more effective by interlocking directorates.

7. Cartels, consisting of contractual agreements among concerns in the same field of business to divide the market and limit competition among themselves.
8. Trade associations, in so far as they cooperate to study accounting problems, labor relations, government relations, and price policies, and join in research activities.
9. Voluntary chains, consisting of a large number of retail units that contract with a central organization to provide the benefits of unified management.

It should be observed that types 6 through 9 above are types of intercorporate relations that do not involve combination of the enterprises involved. But they have been utilized for many of the same reasons that combinations have been employed. Moreover, they may be forerunners of combination at a later date.

Advantages of Combinations.—Expansion by combination has certain advantages, as well as disadvantages, compared with internal expansion. Combination requires no cash if it can be effected through exchange of securities. No time is lost in having additional plant capacity in operation. There is less risk because past operating results are known. If an entire business is acquired, the buying corporation comes into possession of goodwill also. Combinations do not increase the productive capacity of an industry, and therefore do not lead to excessive capacity and disturbed markets. Moreover, combinations offer an opportunity of acquiring valuable managerial skill, new customers, new processes, and additional working capital, as well as additional plant facilities.

In recent years, new factors have stimulated business combinations. The desire to achieve capital gains through the purchase and sale of whole businesses is one of these. During World War II, many enterprises greatly expanded their activities to fulfill government war contracts and to utilize maximum plant capacity, in numerous instances acquiring enterprises with peacetime products and outlets and liquid capital resources. New products and distribution facilities had to be developed quickly, and in many cases combination was the answer. Likewise, shortages of materials or parts resulted in combinations in certain industries (i.e., the textile industry), so as to assure supplies and obtain the full benefit of a seller's market for the finished goods.

Economic Motive for Business Combination.—The economic motive for business combination is to increase or stabilize profits. This may be achieved by:

1. An increase in sales volume.
2. Higher or more stable prices.
3. A reduction in expenses. Economies of integration, horizontal, vertical, and circular include:

Buying (materials, plants, stores, and so on)
Assured and steady supply of materials.
Unification of buying departments and staffs.
Bulk instead of detail purchases.
Greater opportunity for comparison and selection.
Cheaper credit and better discounts.
Standardization of materials.

Manufacture
Standardization of product.
Specialization in product (specialization of plants and labor).
Improvements in plant.
Use of by-products.
Equalized distribution of work.
Quality.

Selling
Transportation economies.
Unification of selling departments and staffs.
Extension of export trade.
Collective advertising.
Lower costs of distribution and fewer middlemen.

Knowledge
Interchange of data and experience.
Standardization and interchange of costings.
Collection and dissemination of trade statistics.
Promotion of scientific and technical research.
Tax research and study.
Better labor relations with qualified personnel men.

General
Lower management costs.
Lower financing costs.

Practical Realities of Business Combinations.—Economies are not always realized from combinations as expected. Even when realized, a considerable expenditure of additional funds may be required. Plants may have to be altered at considerable expense before **full coordination of operations** is achieved. It is not always possible to reduce the personnel immediately. If the sales force is reduced, a loss of business may result. In any event it can hardly be expected that the entire trade of the acquired business can be retained, except when the acquisition is consummated in such a manner that the public does not become aware of the change. Unless the businesses combined naturally complement each other, the time and money expended in coordination and physical consolidation of production and marketing facilities may result in a permanent increase in the unit cost of production. Another factor to be remembered is that most business combinations are put together at the top of the business cycle when earnings are high and values inflated, with the consequence that the combination may result in an overcapitalized and weak financial structure. Hence, it is easy to understand why expected savings or higher earnings may not materialize.

Andersen (N.A.C.A. Bulletin, Vol. 13) summarizes the dangers inherent in large combinations as follows:

When any consolidation is proposed, it is customary to prepare fairly complete statements of results of operations and financial position of the constituent companies and to set up pro forma combined statements, picturing the results which have been attained in operations and which will obtain in the way of assets, liabilities and capital structure. Important as such a picture is, it cannot be accepted unquestionably as an indication of what will take place when the actual new business unit is functioning as a single entity. The factors of management, markets, methods, and men all will have changed and the history of the future will not be directly comparable with the history of the past.

The belief that mergers are inevitably beneficial is perhaps the result of many obvious examples but also may be due to the psychology of this

country in admiring anything huge. Yet a large organization has much the same susceptibility to defective operation as has the small business, and in addition has potential weaknesses peculiarly its own. Of course, it has strengths just as much its own, which may offset some weakness but which do not eliminate the chance of weakness. In fact, pursuance of a merger policy may in itself be a great weakness unless the greatest care and intelligence are used, in that there is temptation toward too rapid a rate of expansion. Properties may be added one after another too quickly to allow for proper control and coordination, resulting in an industrial indigestion which is highly uncomfortable and may possibly be fatal.

When several different businesses are merged, a major operation is performed. If it is well performed, the intent and result is attained of eliminating all of the various individual weaknesses and retaining all of the numerous individual strengths, plus the added advantages possible only because of increased size. It is rare for this perfect result to be secured, for many recent mergers have been based on financial considerations rather than on careful economic and industrial analyses, and even at best there are human faults and human errors to deal with, which modify theory and lead to practical compromise of action.

Business Combination

PLANNING FOR FUTURE COMBINATIONS.—If a corporation is contemplating expansion through combination, the following preparatory measures are desirable:

1. The management should assure its **control,** for opposition may develop which could use the combination proposal as a reason for changing the management. Also, the management will want to protect its control from undue dilution as a result of the exchanges of securities in the combination.

2. The stronger its **current financial position,** the better the bargaining position of a corporation negotiating a combination. Cash may be required in substantial amounts to pay off dissenters. Dependence on borrowing to provide the cash needs of the combination may prove a boomerang should the enlarged concern enter a period of declining sales and earnings that would give rise to difficulty in meeting interest and principal on the indebtedness.

3. The **investment status of the common stock** should be built up, as this will inevitably assure a superior bargaining position in formulating the terms of exchange of shares.

4. An **investment banking connection** is helpful in assuring strong financial sponsorship of the combination and any underwriting that may be required.

5. A **strong competitive position** in the industry gives a company a better bargaining position in the negotiation. If a company has established an outstanding name for itself in the eyes of the public, its customers and the trade, the goodwill element should weigh heavily in its favor in the terms reached for the exchange of securities.

6. If possible, a combination should be put through in the earlier part of an **upswing of the business cycle,** so as to get the benefits of improving business conditions. However, most combinations are put through near the top of the cycle, so that too often the result is overcapitalization. Adequate preparations for a combination program will enable management to time its actions.

CONSIDERATIONS IN SELECTING THE FORM OF BUSINESS COMBINATION.—In choosing among the various methods of combination, management should weigh certain factors with relation to the goals. Primary considerations in the selection of a type of business combination are:

Ease of Effecting the Combination.—Certain types of business combinations are easier to effect than others. Thus, in many states it is easier to effect the combination through purchase of assets than by means of merger. For example, the Delaware law specifies that a majority vote of the stockholders of the selling corporation is all that is necessary to effect such a combination, whereas if the merger or consolidation device is used a two-thirds vote of the stockholders of each of the constituent corporations is required. Similarly, the extent to which dissenters may cause trouble will influence the type of combination selected.

Ease of Financing.—The size of the capital outlay necessary to effect combination by means of the various methods will often greatly influence the particular method chosen. Thus, the lease device is the most economical in many cases, for no capital outlay is called for.

Degree of Management Control.—In selecting a particular type of business combination, corporate management must necessarily consider the extent to which it will retain control over the expanding enterprise. For example, combination by merger or consolidation will result in absolute control over the properties to be acquired. On the other hand, if the properties are to be operated through the lease device or by means of a holding company, the control is not absolute and may be lost in the future. The issuance of additional stock to effect mergers or purchases of assets of other enterprises may dilute stockholdings of management, and so shift control to others.

Flexibility and Permanence.—These factors are most important both at the time of expansion and at a later date when adjustments and changes may be desirable. Obviously the merger and consolidation are the least flexible and the most permanent, since all corporate assets and liabilities are involved. At a later date, if the properties acquired prove unprofitable it will not be easy to segregate them if they have been acquired by merger or consolidation. Purchase of assets may involve only part of the assets of the selling corporation, or, if the entire assets are involved, the purchase terms may not involve an assumption of the selling corporation liabilities. Similarly, if expansion is effected through the holding company device, separation of the controlled properties may be effected in the future through sale of the stock of the subsidiary. Likewise, if acquisition has been effected through lease, financial difficulties in the future may lead to a disaffirmance of the lease in reorganization.

Taxation.—Consideration must be given to the tax burden which the particular combination method imposes on each of the corporations and on their security holders. Thus, the tax on intercorporate dividends and the stringent requirements for filing consolidated tax returns have encouraged the use of mergers and consolidations in preference to the holding company device. A sale of assets may involve a heavy capital

gains tax. The Revenue Act distinguishes between taxable and tax-free exchanges.

The Purchase of Assets

WHEN PURCHASE OF ASSETS IS USED.—The purchase of assets is a legal device frequently employed to effect a combination of two or more concerns. Thus, if companies A and B desire to combine, the directors negotiate a sales contract whereby B, with the consent of its stockholders, agrees to transfer to A all or a substantial part of its assets for a consideration consisting of stock or other securities, and less often of cash. Company A may assume the debts of company B or a certain stipulated portion of them. The transfer of title is effected by ordinary instruments of conveyance. Company B, upon receiving A's stock, either distributes these shares to its shareholders and dissolves if the sale involves all of its assets, or else continues purely as a holding company owning securities in A.

The purchase of assets device has been used under various conditions. An existing company may simultaneously purchase assets of two or more other going concerns. A new company may be organized by promoters to purchase the assets and business of several existing concerns.

A sale of assets may be used also in breaking up an enterprise into several parts to segregate risks or for other reasons. A corporation engaged in several lines of business may decide to organize a separate company for each line and sell to it the property and business belonging to that line. Receiving the stocks of the newly formed companies, it may distribute these holdings among its stockholders and dissolve, or it may continue as a holding company.

Failing companies are sometimes taken over through purchase of their assets by more successful concerns to extricate them from their difficulties. A sale of assets is also used as a device in effecting voluntary reorganizations. A new corporation is formed which purchases the assets and business of the old. Transfer of assets by sale is also often resorted to in internal corporate readjustments, as between parent and subsidiary companies or between subsidiaries.

A business may purchase the tangible assets of another, such as plants, equipment, and inventories, leaving out other assets not wanted or whose valuation cannot be agreed upon, as well as the goodwill. Thus, in 1945 Westinghouse Electric Corp. purchased the incandescent lamp manufacturing plant of Ken-Rad Tube & Lamp Corp. for 35,130 shares of Westinghouse common stock. On December 20, 1944 Ken-Rad Tube & Lamp Corp. had sold all its assets used in the manufacture of radio tubes to General Electric Co.

Legal Aspects of Assets Purchase.—Whether or not **consent of the vendor company's stockholders** is required hinges on the importance of the property being sold, except where statutory or charter provisions specifically call for such approval by a vote of stockholders. If the property sold is an integral part of the vendor's business and the character of the business will be substantially changed through the sale, then consent of the stockholders is needed. In some cases it is only when

the goodwill is sold along with the tangible property that the consent of the stockholders of the selling corporation is required. A selling corporation's business may be of such a nature that its profits are made by the sale of its tangible assets in one transaction. In such a case, the company continues in business with the proceeds of the sale and prepares for another such transaction. Real estate development companies are an example of such a business. Stockholders' consent to sales in such cases is not required.

In the purchase of branch plants of other companies, without acquisition of their business as a whole, contracts of the vendor corporation with respect to the operation of the plant must be examined carefully. As an inducement to bring new plants into a city, power companies often give very favorable rates under contracts which may not be extended on the same basis to a subsequent purchaser of these plants. The same may be true of favorable agreements sometimes executed with city officials on tax assessments, water rates, etc., when a new plant was built.

Among the many corporations utilizing this method of business combination have been Jones & Laughlin Steel Corp. (acquired business and most of the assets of Otis Steel Co. in 1942); United States Rubber Co. (purchased assets and business of the Fisk Rubber Corp. in 1939); Safeway Stores, Inc. (numerous acquisitions including assets and business of National Grocery Co. in 1941); and Noma Electric Corp. (numerous acquisitions including business and assets of Estate Stove Co. in 1945).

When the United States Rubber Co. and the Fisk Rubber Corp. decided to combine in 1939, the stockholders of the latter voted to approve the agreement entered into by the managements of the two companies for the sale of all of Fisk's assets and business. The purchase price was (a) $6,827,330 in cash, (b) 109,981 shares of United States Rubber Co. common stock, and (c) the assumption of Fisk's liabilities. The purchase price was sufficient to redeem Fisk Rubber Corp. 6% cumulative preferred stock on February 23, 1940 at $110 per share plus accrued dividends, the balance being equal to about $6.75 per share in cash and one-quarter of a share of United States Rubber common for each share of Fisk common. Fisk Rubber Corp. was then dissolved.

PROCEDURE IN PURCHASE OF ASSETS.—The initiative in the purchase of the assets and business of another conern is generally taken by the management of the expanding company. However, the original idea of the purchase may be conceived by other persons such as promoters, bankers, or large stockholders.

If it is found that the management of the concern to be bought is likely to be hostile to the transaction, it may be advisable to carry on preliminary negotiations with large stockholders with a view to obtaining their cooperation or of purchasing their stock to obtain working control before purchase negotiations are begun. An **option** may be sought on the assets, pending further investigation and negotiations. In some cases, purchase in the open market of the stock of the company to be taken over may be the first step in the absorption of another concern by purchase of assets. However, it is usually very difficult to accumulate large amounts of stock in the open market without forcing the price up to a point where the purchase price of the assets will be raised. It is

highly desirable to obtain the cooperation of the directors of the concern to be absorbed at the outset, for in so doing the danger of trouble later on with a large group of dissenting minority stockholders is usually lessened.

Ordinarily, the steps taken to effect a combination by the purchase of the property, goodwill, and business of one corporation by another are as follows:

Preliminary Negotiations.—Negotiations are usually initiated at the instance of the boards of directors between representatives of the two companies, who may be members of the boards, officers, or lawyers. Other persons may participate in the negotiations including promoters, bankers, and disinterested intermediaries who may be called in to arbitrate disputed points.

It may be agreed at the very outset that pending negotiations and the consummation of the sale, neither company will declare dividends at a rate greater than usual and that neither will issue stock rights during the period, since the terms of sale may have to be changed if this is done.

Tentative Agreement of Sale.—If the negotiations are successful, a plan and agreement of sale setting forth terms and conditions is drawn. This agreement requires approval by the board of directors, stockholders, and state or federal regulatory commissions who may have jurisdiction.

Approval of Directors.—The plan and agreement of sale is submitted to the respective boards of directors for their approval, or for such changes as they may see fit to propose. In the latter event, the agreement is returned for further negotiations between the representatives of the corporations concerned.

Approval of Stockholders.—Following approval by the boards of directors, the board of the selling company recommends the plan to its voting stockholders as required by the statute or its certificate of incorporation. A special meeting of stockholders is called, and a committee of directors may be appointed to solicit proxies. Notice of the meeting sent to the stockholders will be accompanied by a statement from the president of the corporation explaining the terms and advantages of the proposed sale and urging favorable action. If permitted by the statute, instead of calling a meeting of the stockholders the directors may seek their **written consent.** Forms will be prepared in that event and mailed to the stockholders who, by signing and returning the forms, give approval to the sale; or consent may be secured by means of a **deposit agreement** under which assenting shares are deposited with a trust company.

A deposit agreement has certain advantages over other methods of obtaining stockholders' approval of the sale, since the committee of directors in charge may be given a certain amount of discretion to effect certain changes in the plan so long as the essential terms remain undisturbed. But stockholders may be reluctant to surrender possession of their stock certificates even in exchange for certificates of deposit under a definite agreement, which may prove an obstacle in getting the consent of the required proportion of shares to the sale.

Transfer of Assets and Consideration.—When approval of the desired proportion of stockholders has been obtained, a bill of sale, deed of transfer, or other instruments of conveyance are prepared by the attorneys, as in ordinary sales of personal or real property. The business, assets, and goodwill of the company, as specified in the agreement, are thereby formally transferred to the purchasing company, which undertakes to pay the stipulated consideration, including the assumption of all or some of the selling company's liabilities. Instead of the property being conveyed to the purchasing company, the contract of sale may provide that it be turned over to its nominees or subsidiaries. At the time of the execution of the bill of sale, certain of the purchased assets may be resold immediately to other parties.

Distribution of Consideration.—The consideration received by the selling company, including securities, may be distributed among its stockholders according to a plan that may be voted upon at the meeting that sanctioned the sale of assets.

Paying Off Dissenting Stockholders.—One of the last steps in the proceeding is paying off dissenting stockholders in accordance with the procedure laid down by the statute. While the law or charter prescribes the minimum majority of stockholders whose assent is necessary for a sale of assets, efforts should be made to secure as many assents as possible to keep the dissenting minority, whose holdings must be appraised and paid off in cash, to small proportions. Otherwise a considerable sum of money may have to be paid out, which may necessitate new financing to effect the combination. One advantage of the purchase of assets with stock or other securities is that new financing is thereby avoided. This advantage is lost to the extent that cash settlements must be made with objecting minority stockholders.

Dissolution of Selling Company.—Where the selling company has sold all its assets, it may be desired to dissolve the corporation upon consummation of the transaction. The directors will then order the appropriate legal steps to terminate the life of the corporation. Dissolution need not necessarily follow, however. In some cases the selling corporation remains in existence to hold the securities received for its assets, to go into some other business, or to settle tax or other liabilities. Thus, the Adams Express Co. sold its properties in 1918 to the American Railroad Express Co. for stock of the latter company. This stock was gradually sold and the proceeds reinvested, and Adams Express Co. became an investment trust.

STATUTORY AND CHARTER PROVISIONS.—In all of these proceedings, the requirements of the law and the charter provisions must be scrupulously observed. Any failure in this respect affords dissenting stockholders of the selling company an opportunity to appeal to a court to enjoin the entire transaction. Provided the legal formalities are observed and the transaction is carried out in fairness to the minority stockholders, these latter have no grounds for attacking the sale and are obliged to accept the appraised value of their shares as prescribed by statute. In the attempted purchase by the Bethlehem Steel Corp. of the assets of the Youngstown Sheet & Tube Co., minority stockholders of the latter secured an injunction against the consummation of the sale on

the ground that significant information had been withheld by Bethlehem concerning its managerial bonus plan and other matters when the terms of sale were formulated and presented to stockholders for their approval. Pending an appeal to a higher court, plans for the sale were cancelled.

POSITION OF PURCHASING COMPANY.—So far as the purchasing company is concerned, the transaction is no different from ordinary purchases of large amounts. Action by the board of directors is all that is required, unless charter or statutory provisions require assent of stockholders. Usually there are no such provisions, and the only restraint exercised by the stockholders of the purchasing company is in authorizing additional stock if used as consideration in the purchase. Such authorization may be required for this purpose. On the other hand, if a considerable amount of stock is already authorized, to be issued at the discretion of the directors, the latter can proceed unhampered with the purchase of the assets of other concerns. The fact that consent of the purchasing company's stockholders is not generally required is one advantage of this method of combination over consolidation or merger.

POSITION OF SELLING COMPANY.—The selling corporation must be solvent and in full control of its assets. A sale of its business when knowingly insolvent would constitute a fraud upon its creditors. Assets of an insolvent company, whether or not under control of trustees in liquidation or bankruptcy, are in the nature of a trust fund held for the benefit of creditors. If management has custody of the assets, it must act for creditors rather than stockholders, and under such conditions it cannot dispose of the business. However, assets of a bankrupt enterprise may be sold by a trustee in bankruptcy, with court approval, or as part of a plan of reorganization.

STATUTORY OR CHARTER LIMITATIONS.—There are usually no statutory or charter limitations on the power to transfer business assets, except the requirement of stockholders' consent. Under common law, a corporation has the power to dispose of its business as an entirety with the unanimous consent of stockholders. However, if a clause is inserted in the charter forbidding sale of the business, such a provision is controlling inasmuch as it is a part of the contract which the stockholders have entered into with each other and with the state.

General statutory provisions relating to sales of assets do not apply to railroads or public utilities. Such enterprises are usually required to secure approval of regulatory agencies before they can sell part or all of their assets, particularly their franchises.

Stockholders' Consent to Sale of Assets.—Statutes generally permit the sale of assets if a specified majority of the stockholders consent or vote in the affirmative at a meeting duly called to consider the proposed sale.

A sale of the assets and business of a corporation is an extraordinary corporate transaction which is not contemplated by the charter, unless there is a special provision to that effect. Under the laws of the 40 states permitting the sale of all the assets of a business, the approval required ranges from a majority to four-fifths of the stockholders. A two-thirds vote is stipulated in the statutes of New York, New Jersey, Mary-

land, and Ohio. In some states, a distinction is made between a sale for cash and a sale for other consideration. When cash is the consideration, the statute may require approval of only a bare majority of the stockholders, whereas when the consideration is stock or other securities, a two-thirds vote may be required. In a number of states, if a corporation cannot meet its matured liabilities the directors may authorize a sale of assets by majority or a two-thirds vote.

The laws of most states provide for the appraisal and purchase for cash of **dissenting stockholders'** shares. From the standpoint of nonassenting stockholders, the transfer of all the corporate assets is treated as a practical dissolution. Stockholders who do not wish to assume new risks are thus allowed by the statute to insist on receiving the fair cash value of their holdings. Apart from the protective provisions of the statutes, courts of equity afford dissenting stockholders protection against fraud or oppression.

A stockholder who votes against the sale of assets has a stated period of time, usually at least 20 days, within which to make demand upon the corporation for payment for his stock at its fair value as of the date of dissent. Unless the demand is made within the specified period, the stockholder must accept the amount tendered by the corporation, which must, however, be reasonable. If the dissenting stockholder and the corporation fail to agree upon a fair value for the stock, provision is made for the appointment of disinterested appraisers, usually three, who appraise the value of the stock without regard to any appreciation or depreciation in value which may result from the sale of assets. The appraisers may be appointed by a court, or one may be appointed by the dissenting stockholders, another by the corporation, and the third by two already selected. The award of the appraisers may be final and conclusive or it may have to be confirmed by the court which appointed the appraisers. As finally settled, the award becomes the liability of the corporation and is collectible like any other debt.

From the time of a stockholder's dissent from the action of the majority in the sale of assets, his status as a stockholder virtually ceases. Not only does he lose his voting power, but he is no longer entitled to dividends. While this is the common law, it is expressly provided for in some statutes. A stockholder may withdraw his dissent only with the consent of the corporation. His right to cash payment ceases if the corporation abandons its plan to sell its assets.

In 1930, when two-thirds of the stockholders of the Youngstown Sheet & Tube Co. voted approval of the sale of its assets to the Bethlehem Steel Corp., some dividends were withheld from dissenting stockholders owning approximately 330,000 shares of Youngstown stock, pending appraisal of their shares. The consummation of the sale of assets was held up by a court injunction obtained by Youngstown minority stockholders, and the plan was then abandoned at the instance of the Bethlehem Steel Corp., which exercised its option in that respect under the agreement. The Youngstown minority stockholders thereupon received the dividends withheld. The Ohio statute, under which Youngstown was incorporated, was amended at the time to compel payment to dissenting stockholders of any dividends or other distributions payable, but such payment must be credited toward the total amount to be paid for these shares by the corporation.

RIGHTS OF CREDITORS IN SALE OF ASSETS.—Creditors of a corporation selling its assets as an entirety have no power to object to the sale, unless it defrauds them. They have extended credit to the corporation with full knowledge of its power to dispose of its property. If the corporation exercises that power, creditors can object only if they are deprived of their rights.

The question of creditor rights arises only when assets are sold for securities of the purchasing company, and not when sold for fair cash value. It is usually held that transfer of corporate property for shares of another corporation makes the purchasing corporation liable for the debts of the seller to the extent of the value of property received from the seller. Creditors of the seller can follow assets when transferred to the purchasing corporation and satisfy their claims from them by judicial process. They are not required to look alone to the securities received as consideration in the sale of the assets. However, when the vendor corporation receives money sufficient to pay its debts, or property that can be used for this purpose, the purchasing corporation will not, in the absence of a specific contract or fraud of a substantial character, be held liable for debts of the selling corporation.

In a sale of assets full provision is ordinarily made in the agreement for the selling company's indebtedness. This usually involves the assumption by the purchasing company of all debts and obligations, the stock or money consideration being paid for the net assets after deducting such debt. Creditors of the selling company thus obtain the same status as creditors of the buying company. Debts are not thus assumed, however, unless expressly so agreed. Creditors of the selling company also have a prior claim to the assets transferred to the purchasing company.

Mortgage Liens of the Selling Company.—A mortgage or other lien placed on the assets while in the possession of the selling corporation usually remains undisturbed by the transfer of such assets. A purchasing company which assumes a mortgage on assets cannot sell or pledge bonds not previously issued by the selling company so as to give them an equal lien with the bonds previously issued by the selling company. An after-acquired clause in the indenture under which the assumed bonds were issued becomes of no effect, according to the weight of authority, and such a clause cannot be made to apply to property acquired by the purchasing company after the date of acquisition of the assets of the selling company.

SUBJECTS OF SALE.—In the purchase of a business, the contract of sale should stipulate whether it is merely the tangible assets of the selling company which are being bought, or whether intangibles are to be transferred as well, including the selling company's goodwill, trade names, and contracts. In the latter case, the selling company's business is being purchased as a going concern.

Dissolution of the selling company may be stipulated in the sales contract. If immediate dissolution is impossible, it may be provided that immediately upon the execution of the sale, the selling company will change its name so that the purchasing company may have full benefit of the goodwill attaching to the old name. A new company may be formed as a subsidiary of the buying company with the old name to

act as a selling company only, in order to preserve the name as a goodwill asset. It has been held that a corporation which purchases all the property and goodwill of another at a dissolution sale has the exclusive right to use the corporate name of the selling company, at least to the extent of showing that the purchaser corporation is the successor of the selling corporation.

Liabilities of Seller.—The purchasing company may undertake to assume all or only certain specified liabilities of the seller. It may, for example, not take over the current liabilities, and in that event certain assets, including cash, receivables, and possibly also certain inventories, may be left with the selling company for the liquidation of this indebtedness. Or the contract may stipulate that the selling company shall retain its cash and receive an additional amount from the purchasing company to pay off the unassumed liabilities.

Assumption of bonds by the purchasing company may be by supplemental indenture. For example, the purchase of the assets of the Otis Steel Co. by the Jones & Laughlin Steel Corp. in 1942 involved the assumption by the latter company of $13,023,000 Otis Steel Co. first 4½s of 1962. On the other hand, the selling company may be obliged by the terms of the sales contract to retire its outstanding bonds, if they are redeemable, with funds indirectly furnished by the purchasing company, as was the case when the business of the Columbia Steel Co. was sold in 1930 to the United States Steel Corp. Bondholders may also be offered stock or other securities of the purchasing company in exchange, which is done when the selling company is in an embarrassed condition. Occasionally, to facilitate the distribution of the proceeds of sale, retirement of the selling company's redeemable preferred stock occurs prior to the transfer of assets. Where the sales contract provides for payment entirely in cash, the selling company may prefer to pay off its own liabilities. Then the consideration paid by the purchasing company covers gross assets exclusive of cash. If any of the liabilities are liens against specific assets, arrangements may be made for a portion of the purchase money to be paid to the indenture trustee who will pay off these obligations.

The purchasing company may have to provide for stock purchase warrants which the selling company has outstanding. This is usually done by giving holders of the warrants the right to purchase at the stated price an amount of the buying company's stock equivalent to the shares of the selling company to which they are entitled to subscribe. The purchasing company may have to enter into a similar undertaking with respect to convertible bonds the selling company may have outstanding.

PROVISIONS REGARDING CONSIDERATION.—The nature and amount of the consideration and the manner of payment should be set forth in the sales contract. The consideration paid by the purchasing company for the net assets involved in the sale (the total assets to be taken over less liabilities to be assumed) usually consists of its stock, either common alone or common and preferred. It may also be exclusively or partially cash, which is usually paid to enable the selling company to retire indebtedness not assumed by the purchasing company or to redeem the selling company's preferred stock. Sale for stock has

an advantage over sale for cash in that a precise dollar valuation of the assets is not necessary. Selling company stockholders may be offered an option of stock or cash. Part or all of the consideration may also consist of bonds.

Purchases of assets entirely or mainly for cash are comparatively rare when the concerns acquired are relatively large. The new financing which such transactions require is something which purchasing companies usually avoid. Purchase of assets with bonds creates fixed charges just like the sale of bonds to raise funds for payment in cash.

Serial notes are often issued in payment for assets when the purchase is not large and the earnings of the purchaser are ample to retire the notes over a few years. The notes may be secured by a **vendor's lien.** This device is most used among smaller enterprises whose credit is not such as to permit financing through a public offering of its securities.

Payment in stock is less usual when part of the physical assets, but not the whole business of the company, is sold. In a partial sale of assets, cash or its equivalent in the form of bonds and notes is usually demanded. Payment in stock is occasionally made for tangible assets transferred between companies having a community of interest, as in the case of the Radio Corp. of America's acquisition in 1930 of manufacturing facilities from the General Electric Co. and Westinghouse Electric & Manufacturing Co. Following this purchase, the latter companies owned between them 51% of the voting stock of the Radio Corp. of America, although in 1933, by a consent decree of the court, they were obliged to divest themselves of these holdings.

What securities of the purchasing company will be offered and accepted in payment will depend in a large measure on the relative strength of each company's bargaining position and the shrewdness with which its representatives conduct their negotiations. The classes of securities of the selling company outstanding and their rights and priorities are factors which must be reckoned with, as well as the wishes of large stockholders. Demand for payment in cash or fixed income-bearing securities is usual when the ownership of the selling company is largely identical with its management, and a change of management is contemplated following the sale. Losing control over their investment, these persons usually want security of income.

PREFERRED STOCK OF SELLING COMPANY.—If the selling company has preferred stock outstanding it is usually necessary to offer in exchange a comparable class of stock. Purchasers of preferred stocks are primarily interested in stability of income, and, unless their company is in an embarrassed position and has suspended dividends on the preferred, it is difficult to induce holders of preferred to accept a junior security in exchange. It may be necessary also to offer an inducement in the shape of slightly higher income, a convertible feature, or a small bonus in common stock to bring the preferred holders into line. This is especially true when the selling company is an old, well-established company with a long record of regular dividend payments, and the preferred is noncallable or is entitled to a high price in liquidation. In the acquisition of the Massachusetts Gas Companies by Eastern Gas & Fuel Associates, an old New England concern was taken over by a new company managed by Pittsburgh interests. Holders of the 4% preferred

stock of Massachusetts Gas Cos. were offered 4½% prior preferred in the new company, share for share, to make the exchange attractive.

AUTHORIZATION OF STOCK FOR EXPANSION PURPOSES.—A concern which has adopted a policy of expansion by acquisition of assets of other concerns will usually place at the disposal of the directors ample amounts of authorized but unissued stock for their use in taking immediate advantage of opportunities to acquire desirable properties. Otherwise, the directors have to apply to the stockholders for authorization of an increase in capital stock as a necessary preliminary to the consummation of a purchase of assets of another concern. By granting such authorization only as negotiations for new acquisitions are entered into, stockholders of the purchasing company can exercise full control over the activities of the directors in this respect, even though directors of purchasing companies are not by law required to obtain specific permission of stockholders before entering into contracts for the purchase of other businesses.

ADVANTAGES AND DISADVANTAGES OF PURCHASE OF ASSETS.—Advantages and disadvantages of the purchase-of-assets method of combination are:

Advantages.—

1. It is easier to effect than a merger or consolidation in that in most states only stockholders of the selling corporation have to approve. No action on the part of the stockholders of the buying corporation is required unless the buying corporation finds it necessary to increase its authorized capital stock in order to effect whole or part payment for the assets to be acquired.
2. It is a more flexible method of combination as compared to certain others in that only part of the assets may be desired and partial purchase may be made, whereas a merger involves the acquisition of all the assets of the absorbed concern. Similarly, the purchasing company may undertake to assume all or only some liabilities of the selling corporation. Agreement on terms is more likely when some assets and liabilities can be left out of the deal.
3. It may be the only practical method of combining corporations organized under state laws which prohibit merger or consolidation of a domestic corporation with a foreign corporation.
4. The purchase-of-assets method does not involve the legal details attendant upon the formation of a new corporation.
5. There may be a tax advantage, if the sale permits realization of a capital loss on a taxable exchange.

Disadvantages.—

1. The statutes of some states regard the distribution of stock received in exchange for assets as a transaction distinct from the sale of the assets, and separate consent of the stockholders must be received. (Geiger & American Seeding Machine Co., 177 N. E. 594.) Even if the stockholder has voted for the sale of the assets and business of his company, he may still object to the distribution in liquidation of the securities of the purchasing company received and may insist upon receipt of cash, although some courts have ruled that when stock taken in exchange in a sale of assets has an established market value it may be considered an equivalent of money.
2. As under other statutory methods of business combination, dissenting stockholders of the selling corporation may avail themselves of their statutory appraisal rights. This may require such large cash

payments as to make combination by this method impractical. Moreover, if dissenting stockholders are held entitled to a high price, the additional money must come out of the proceeds of the sale, unless the liability is specifically assumed by the buying company, since the court's decision cannot alter the terms of the sale. This fact explains why the board of a selling corporation usually reserves the right to cancel the sale until after the period has elapsed during which dissent may be registered.

3. Legal objections have sometimes been raised where it is the intention to have the selling corporation remain as a holding company or investment trust. In such cases it has been argued that a corporation has no power to sell its assets and remain in existence as a holding company except by express statutory consent.
4. The sale of assets may result in a heavy federal tax liability to the selling corporation if a gain is thereby realized, unless the transaction is held by the Bureau of Internal Revenue to constitute a tax-free exchange under the Revenue Act, upon which no gain or loss has been registered. Such tax complications caused the merger method to be substituted for the sale-of-assets method in the combination of Loft, Inc., and Pepsi-Cola Co.

The purchase of assets, regardless of whether all or only part of the assets of the selling corporation are to be acquired, necessarily involves the problem of valuation. Since this valuation problem is also of great importance in effecting mergers and consolidations, discussion of valuation technique is reserved for a later part of this Section.

Consolidations and Mergers

DEFINITION OF CONSOLIDATION.—In a consolidation, two or more companies by agreement and under legislative authority become united into a new corporation, organized for the purpose, which takes over their property, rights, privileges, contracts, and franchises, whether of a public or private nature, and assumes their liabilities and other obligations. Generally, stockholders of the consolidating companies exchange their shares for stock of the consolidated company and thus become stockholders of the latter, though they may be partly paid off in cash or receive in exchange for part of their holdings bonds or other obligations of the consolidated company.

CHARTER RIGHTS OF CONSOLIDATED COMPANIES.—The new or consolidated corporation succeeds to the charter rights of the original or constituent companies, and in this respect differs from a corporation organized merely to purchase the property and business of a number of going concerns. The charter rights of the selling company do not pass to the purchasing company, but are cancelled and cease to exist with the dissolution of the selling company. In the case of a corporation newly formed to purchase the assets and business of others, such a corporation has a charter of its own quite independent of the charters of the selling companies.

POWER OF CORPORATIONS TO CONSOLIDATE.—A corporation has no inherent or common law right to consolidate with other corporations. The power cannot be implied, and corporations cannot consolidate unless the state has expressly authorized them to do so,

either by a provision in their charters or the charter of one of them, or by a special act passed after their creation and before consolidation, provided such special act is constitutional, or by a general law. As expressed in effect by Fletcher (Law of Private Corporations), legislative authority is just as vital to a valid consolidation of existing corporations as it is to the creation of a corporation in the first instance.

If at the time a corporation is created there is no constitutional or charter provision or statute authorizing a consolidation, and the state has not reserved the right by constitutional or statutory provision to amend or repeal the charter, a consolidation cannot be effected without the consent of all the stockholders of the constituent companies. To allow a subsequent consolidation statute to have this effect would impair the obligation of the contracts between the corporations and the dissenting stockholders. (Fletcher, Law of Private Corporations.) If, however, there is a reservation of the right to amend or repeal corporation charters, all corporations are subject to any consolidation statute that may be enacted after their incorporation.

STATE LAWS GOVERNING CONSOLIDATIONS.—Many, if not all, states have provisions for consolidations on their statute books. These are the sole authority for consummating a consolidation and they must be carefully observed. The statutes governing consolidations prescribe what corporations may be consolidated, the manner and the procedure of effecting the consolidation, the rights of the stockholders and creditors of the old constituent companies, the rights and privileges of the new consolidated company, and the status of the consolidating companies for a period after the act of consolidation.

What Corporations Can Consolidate.—The general statutory provisions for consolidation usually relate to private business corporations. There are special provisions to cover consolidation of railroads, public utilities, banks, insurance companies, savings banks, and other corporations which are subject to public regulation in one form or another, although in some states there is but one statute for all corporations. Railroads and public utilities may have to observe conditions laid down by the public service commissions, which may include obtaining the commission's permission and approval of the terms. The Interstate Commerce Commission must approve consolidation (or merger) of interstate railroad corporations. Similarly, the Securities and Exchange Commission under the Public Utility Holding Company Act of 1935 must approve mergers of registered public utility holding companies and their subsidiaries. Consolidations and mergers among banks are usually effected with the consent and under the supervision of the State Superintendent of Banking. In the case of national banks supervision is the responsibility of the Comptroller of the Currency. Similar supervision may be exercised over consolidations of insurance companies by the State Superintendent of Insurance.

Restrictions laid down in the different state statutes affecting consolidations differ widely. Consolidation of parallel railroads or competing companies may be prohibited. Consolidations may be restricted to corporations organized to carry on business of the same or similar nature. New Jersey has such a provision which applies also to mergers. In Copeland v. United Shoe Machinery Co. (84 N. J. Eq. 276), a preliminary

injunction was granted restraining a proposed merger of two corporations where the charter of the one conferred more extensive primary powers than the charter of the other, and where some of the objects of the one were not similar to any of the objects of the other.

Prohibition of consolidations of domestic with foreign corporations (those organized in other states) is included in some statutes. Under others, the new corporation resulting from consolidation must be organized under the laws of the state.

Effect of Consolidation.—The effect of the consolidation is to fuse the constituent companies into a single corporate unit. However, some statutes authorizing consolidation provide for the continuance of the consolidating companies as corporate entities for a certain period, such as 2 or 3 years, for maintaining or defending suits pending at the time of consolidation, adjusting liabilities or transferring property, or for the protection of creditors' claims. However, as the new consolidated corporation assumes the entire liabilities of the constituent corporations only damage suits can arise. As a general rule, recent court decisions lean toward the realistic conception of dissolution by consolidation (or merger), unless the statutes of the states in which the corporations are chartered definitely indicate a contrary contention. In the last analysis, the state statute determines whether the constituent corporations will be dissolved or not.

By the act of consolidation the new corporation succeeds to the title of all properties of the constituent companies as provided in the agreement of consolidation. No instrument of conveyance, assignment, or other act of transfer is necessary under the provisions of most state laws. Similarly, no formal assignment of contracts or claims of consolidating companies is necessary to pass title to them, though there may be a provision to that effect in the statute or the consolidation agreement. Debtors of the constituent companies become debtors of the consolidated company, which may therefore sue on a note formerly held by one of the constituent companies. But to enforce claims the consolidated corporation must show compliance with all the requirements of the law authorizing the consolidation.

Except as otherwise stipulated in the statute, the consolidated corporation possesses all of the rights, privileges, franchises, and immunities of the constituent companies. The New York statute provides: "Such new corporation in addition to the general powers of corporations shall enjoy the rights, franchises and privileges possessed by each of the corporations so consolidated, subject to the restrictions, liabilities, duties and provisions contained in this chapter, and may prosecute or carry on any kind of business which any of the consolidating corporations was authorized by law to conduct."

Procedure in Effecting Consolidation.—Although the laws vary from state to state, the procedure is generally as follows:

1. **Agreement on terms between negotiators.** It is only after a period of negotiation between the officials of the companies concerned, and often interested outside promoters, that a formal agreement is drawn up embodying the terms of the consolidation.

2. **Approval of the terms of consolidation by the board of directors of each constituent corporation.** This approval is effected by the

passage of resolutions containing the terms of the consolidation and the method and basis of exchange of the securities. The resolutions also direct that the consolidation plan be submitted to the shareholders for their vote.

3. **Obtaining stockholders' consent.** After the agreement of consolidation has been approved by the directors of the several consolidating companies, it is submitted to their stockholders for final ratification. For this purpose a special meeting of the stockholders is called. The statute frequently sets forth the precise manner of calling such a meeting. The stockholders may vote in person, or by proxy, and if the required majority of the voting shares as provided in the statute adopt the plan of consolidation, it becomes effective as soon as certain other legal formalities are completed. The statute prescribes the majority of the voting stock which must approve a consolidation, usually two-thirds. However, this does not preclude the stipulation by corporations of a higher proportion in their certificates of incorporation, or a lower one but not less than a stated minimum.

4. **Execution of consolidation agreement.** The next step is to obtain the signatures of the president and secretary of each of the consolidating corporations and, with the filing of the signed agreement in the office of the Secretary of State or some other state official, the agreement becomes the act of or articles of consolidation, and the consolidated company comes into existence. Certified copies of the agreement may also have to be recorded in the counties in which each of the consolidating companies has recorded its original certificate of incorporation. Election of the board of directors ordinarily takes place immediately after the filing of the articles of consolidation.

5. **Exchange of securities.** In accordance with the terms of the plan of consolidation the securities of the new corporation and any other consideration will be distributed among the stockholders of the constituent corporation.

6. **Settlement with dissenting stockholders.** One of the last steps in the procedure is the cash settlement with dissenting stockholders in accordance with the procedure laid down by state law, but not all statutes provide for such settlement. Rights of dissenting stockholders are discussed in full in the following paragraph.

Rights of Dissenting Stockholders.—Dissenting stockholders who have voted against the consolidation proposal at the special meeting of stockholders, or who refrained from voting there, may file objection to the consolidation and obtain the relief specified in the state law. Most statutes on consolidation provide for **appraisal rights** for dissenting stockholders. Thus, the New York State law provides that any stockholder not voting in favor of such consolidation may at any time prior to the vote on such consolidation object to such consolidation and demand payment for his stock. Once such objection has been filed the stockholder or the corporation may apply to the court to appoint appraisers to determine the value of the stock which amount shall be paid to the dissenter as approved or modified by the court.

Stockholders who object to a proposed consolidation may attempt to block the consummation thereof by bringing action in equity to enjoin the consolidation on the ground that the terms of exchange of securities

are fraudulent. Stockholders of one of the constituent corporations may claim that they are getting unfair treatment as compared to that accorded the stockholders in the other constituent corporations. Similarly, one class of stockholders of a constituent corporation may argue that other classes of stock of the same corporation are unjustifiably receiving preferential treatment. In either case it is claimed that improper dilution of equity and control results. Other grounds of action have included the claim that proper legal procedure to effect a consolidation was not followed, or that the consolidation would constitute an ultra vires act or a violation of anti-trust laws.

Rights of Creditors in Consolidations.—Creditors of the constituent corporations are allowed no voice in the decision to consolidate. They can bring suits to halt consolidation only on the basis of fraud, unfairness, or because of the illegality of the mode of consolidation. If the legislative authority to consolidate existed when they became creditors of the consolidating corporations, the legal presumption is that they acted with full knowledge of the power of the corporations to consolidate and they are thereby estopped from refusing to become creditors of the consolidated corporation. If the legislative authority was granted only after they became creditors, they are not restricted to a remedy against the consolidated company, but they may follow the assets of the consolidating corporations into the hands of the consolidated corporation.

TREATMENT OF MORTGAGE LIENS.—Liens on the property of the constituent concerns are not affected by any sale of property, consolidation, or merger, unless the holder of the obligation agrees otherwise. Mortgages of the constituent companies remain liens on the mortgaged property after that property has been transferred to the consolidated corporation. Issue of bonds by the consolidated corporation in connection with the consolidation will depend upon the statute and the agreement of consolidation. If one of the constituent corporations executed a mortgage to secure bonds which were to be issued in the future acquisition of property by it, the consolidated company may not issue its own bonds under such mortgage unless the mortgage indenture permits such an issue.

After-acquired property clauses in the mortgage indentures of a constituent corporation are usually rendered of no effect by the consolidation, so that property acquired by the consolidated corporation from the other constituent companies or after the consolidation does not become subject to such mortgages. Liens on property taken over by the consolidated corporations have priority over liens subsequently executed.

POSITION OF UNSECURED CREDITORS.—There is a conflict of authority as to whether unsecured creditors of a constituent corporation acquire a lien on its property as it passes into the hands of the consolidated corporation. Usually statutes provide for the assumption of debts by the new company, but some statutes do not relieve the constituent companies of their respective liabilities. Nor are stockholders of the constituent companies released from their liabilities, if any exist, by reason of the consolidation.

The New York statute regarding the position of creditors of the constituent companies is as follows:

The rights of creditors of any constituent corporation shall not in any manner be impaired, nor shall any liability or obligation due or to become due, or any claim or demand for any cause existing against any such corporation or against any stockholder thereof be released or impaired by any such consolidation; but such consolidated corporation shall be deemed to have assumed and shall be liable for all liabilities and obligations of each of the corporations consolidated in the same manner as if such consolidated corporation had itself incurred such liabilities or obligations. The stockholders of the respective constituent corporations shall continue subject to all the liabilities, claims and demands existing against them as such, at or before the consolidation; and no action or proceeding then pending before any court or tribunal in which any constituent corporation is a party, or in which any such stockholder is a party, shall abate or be discontinued by reason of such consolidation, but may be prosecuted to final judgment, as though no consolidation had been entered into; or such consolidated corporation may be substituted as a party in place of any constituent corporation, by order of the court in which such action or proceeding may be pending.

MERGERS.—A merger is the absorption of one or more existing corporations by another existing corporation. Mergers differ from consolidations, therefore, in that the absorbing corporation is not a newly formed corporation. When corporation A is absorbed or merged into corporation B, a going concern, the latter succeeds to all A's property, rights, privileges, immunities, and franchises, whether of a public or private nature, and at the same time assumes all of A's liabilities and other claims against A. As a result of the merger, corporation B becomes the successor of corporation A in the eyes of the law.

Power of Corporations to Merge.—Like the power to consolidate, the power to merge is derived strictly from legislative enactment. Without the existence of a statute conferring such power, no corporation of that state can participate in a merger. The power to consolidate does not necessarily imply the power to merge.

What corporation may take part in a merger, the manner of effecting mergers, the precise rights, liabilities, and obligations of the absorbing corporation, and the rights of the stockholders and creditors of the absorbed corporations are regulated in varying detail by the statutes. Usually, under the statutes corporations which may consolidate may also form a merger. In New York State, however, mergers (other than mergers of electric and gas corporations) are confined to corporations owning all of the stock of the corporations to be absorbed, which may give a high nuisance value to any minority dissenting stock that would have to be bought over in mergers attempted in that state. The nuisance value of such minority stock would roughly represent the extra expense of maintaining a separate corporate organization, including directors' fees, accounting costs, taxes, etc.

In many states, including Delaware, Ohio, and New Jersey, the same statutory provisions apply to both mergers and consolidations.

Merger Procedure.—Merger procedure is similar to that of consolidation. An agreement of merger is drawn up and signed by the officers and directors of the absorbing concern and of those to be merged, and is then submitted for the approval of a prescribed majority of voting stockholders at a special meeting called for the purpose. The merger

becomes effective with the filing of this agreement in the office of the Secretary of State, or in the manner required by statute.

The terms of the merger, including the basis for the exchange of stock between the absorbing corporation and stockholders of the merged corporations, must be stated in the agreement. Dissenting stockholders have the same rights as in the case of a sale of assets or consolidation. The rights of creditors of the merged companies are similar to those of the constituent companies in consolidations.

ADVANTAGES AND DISADVANTAGES OF CONSOLIDATIONS AND MERGERS.—As methods of business combination, the advantages and disadvantages of the consolidation or merger device are:

Advantages.—

1. Consolidations and mergers are generally treated by the Bureau of Internal Revenue as tax-free exchanges which lead to no gain or loss. However, it is wise to get an advance opinion from the Bureau of Internal Revenue on this question to avoid unexpected assessment of tax liabilities.
2. Consolidations and mergers constitute permanent forms of combination which result in the management obtaining complete and full control. In this respect they differ from looser forms of combination such as the holding company.
3. Consolidations and mergers result in centralized authority and administration as compared to the holding company structure where there is often divided authority and the expense of keeping a number of corporate organizations in existence.

Disadvantages.—

1. Consolidations and mergers have an element of inflexibility in that it is necessary to take in all the assets and liabilities of the corporations being consolidated or merged. The purchase of assets is a more flexible method of combination because only part of a corporation's assets may need to be purchased, and only some of the liabilities assumed.
2. It is necessary to get approval of the stockholders of each corporation involved in a consolidation or merger, whereas in the purchase of assets only stockholders of the selling corporation have to approve, and in a holding company arrangement approval of stockholders is not required at all.
3. Consolidations and mergers often create personnel problems, particularly with respect to executives of the various companies. This factor has prevented many consolidations and mergers from being effected.
4. Determination of terms of exchange often prove stumbling blocks. since each corporation and class of stockholders will endeavor to receive favorable treatment. The valuation problem is reduced to a minimum where the holding company device is employed.

Since mergers and consolidations have much in common, no attempt has been made to discuss the advantages and disadvantages of each separately. It should be recognized, however, that certain differences between the two devices do exist, and under given conditions one device may be preferable to the other provided the statutes permit a choice. Thus, if a small corporation is being fused with a large corporation (with a variety of outstanding stock issues) it will usually be far simpler to merge the smaller into the larger corporation. Similarly, dissolution of

the larger corporation might be inadvisable because of the goodwill established or inability to pass a valuable franchise privilege to the consolidated corporation. Conversely, consolidation might be preferable in other situations. For example, by eliminating the corporate entities of the constituent companies, consolidation makes possible greater freedom in setting up the new organization. Similarly, consolidation presents the opportunity to draw up a new charter and to incorporate in a new jurisdiction. Likewise, consolidation gives greater freedom in adjusting the accounts of the constituent companies so as to reflect present-day values and operating conditions.

TERMS OF CONSOLIDATIONS AND MERGERS.—Inasmuch as consolidations and mergers are subject to statutory regulation, the terms will have to conform to the statutory provisions. In some states it would appear that the identity of the stockholders of the several corporations must remain unchanged just before and after consolidation. Therefore stock may be issued only to the shareholders of the consolidating or merging concerns, though the stock so issued need not be in the same class as that surrendered. Other states, however, have more liberal provisions which permit the consolidated or absorbing concern to exchange cash and their obligations, in addition to stock, for the shares of the several companies entering into the consolidation or merger.

EXAMPLES OF MERGERS AND CONSOLIDATIONS.—Some of the more important mergers effected in recent years include:

Year	Merging Company	Absorbed Company
1937	Nash Motors Co. (Name changed to Nash-Kelvinator Corp.)	Kelvinator Corp.
1938	Allegheny Steel Co. (Name changed to Allegheny Ludlum Steel Corp.)	Ludlum Steel Co.
1941	Lockheed Aircraft Corp.	Vega Airplane Corp.
1941	Celanese Corp.	Celluloid Corp.
1941	Loft, Inc. (Name changed to Pepsi-Cola Co.)	Pepsi-Cola Co.
1943	Western Union Telegraph Co.	Postal Telegraph, Inc.
1944	Brill Corp. (Name changed to ACF-Brill Motors Co.)	American Car & Foundry Motors Corp.
1945	Colorado Fuel & Iron Corp.	Wickwire Spencer Steel Co.
1945	Eureka Vacuum Cleaner Co. (Name changed to Eureka Williams Corp. in 1946)	Williams Oil-O-Matic Heating Corp.
1945	Pittsburgh Coal Co. (Name changed to Pittsburgh Consolidation Coal Co.)	Consolidation Coal Co.
1946	Celanese Corp.	Tubize Rayon Corp.

Recent consolidations of importance include: (1) the consolidation in 1945 of Buffalo Niagara Electric Corp., Niagara, Lockport Power Co., The Lockport & Newfane Power & Water Supply Co., and Buffalo, Niagara & Eastern Power Corp. to form Buffalo, Niagara Electric Corp.

(new); and (2) the consolidation in 1943 of Consolidated Aircraft Corp. and Vultee Aircraft, Inc. to form Consolidated Vultee Aircraft Corp.

The merger of Pittsburgh Coal Co. and Consolidation Coal Co. had several interesting aspects. Heads of the two companies issued a joint statement clearly explaining the business reasons for the merger as follows:

> A merger of the two companies is desirable for a number of reasons. In addition to the obvious economies that could be effected, the combined facilities would considerably improve the position of the new company in its effort to meet the serious postwar problems of the industry. The greater diversification of commercial grades of coal would offer the consumer a wider range of coals, and for the company would result in an enlargement of market opportunities, while at the same time affording protection from further inroads into coal markets by competing sources of fuel and power. The spirit and aim behind this merger is to have a strong, well financed, aggressive unit which will fight to restore coal as an undisputed primary source of energy.

Secondly, the Pittsburgh-Consolidation Coal merger resembled a consolidation in its financial aspects since stockholders of each corporation exchanged their securities for new securities, whereas in the typical merger the absorbing company does not offer new securities to its own stockholders but only to the stockholders of the absorbed company. Yet the combination was a merger from a legal standpoint, since it provided for the merger of Consolidation Coal Co. (a Delaware corporation) into the Pittsburgh Coal Co. (a Pennsylvania corporation), with the name of the latter to be changed to Pittsburgh Consolidation Coal Co. The merger agreement provided for the authorization of new debt and new common stock by Pittsburgh and these new securities were offered to its own stockholders as well as those of Consolidation Coal Co. The merger terms thus effected a readjustment of the capital stock of Pittsburgh Coal Co., as well as a combination of the two companies. The terms were:

1. The assumption of approximately $3,000,000 principal amount of Consolidation Coal Co. funded debt by Pittsburgh.
2. The exchange of each share of Consolidation Coal Co. common stock ($25 par) for (a) $7.50 principal amount of 3½% debentures and (b) one share of new common stock ($1 par) of Pittsburgh.
3. The exchange of each share Pittsburgh 6% cumulative preferred stock ($100 par) with arrears of approximately $165 per share for (a) $26.327 principal amount of 3½% debentures and 3.226 shares of new common stock ($1 par). Opposition on the part of Pittsburgh preferred stockholders resulted in an additional optional offer of $100 cash per share instead of the new securities.
4. The exchange of each common share of Pittsburgh for ¼ of a new share of common stock ($1 par).

After the merger became effective, the only dissenters were holders of 4,803 shares of Pittsburgh 6% preferred. These holders demanded appraisal of the value of their shares in accordance with the merger statute. The excess of par value of capital stock of the constituent corporations over the principal amount of debentures and par value of the common stock issued in connection with the merger was $72,733,313, of which $60,000,000 was employed to set up a reserve for the adjustment of the property account on the balance sheet.

Financial and Accounting Factors in Combinations

VALUATION PROBLEMS IN COMBINATIONS.—Consolidations and mergers, like the purchase of assets, give rise to complex valuation problems. Not only must tangible and intangible assets of diverse character be valued, but securities issued in exchange similarly must be fairly appraised.

As a prelude to the formulation of terms, the following types of analyses are generally made by the negotiating parties:

Accounting Analysis.—An independent accounting firm is often engaged to audit each company's books with the purpose of making the balance sheet and income statements of each corporation as comparable and uniform as possible. This analysis should extend to accounting policies as well as the accuracy of the figures, and attempt to iron out differences in depreciation policies, provision for bad debts and contingencies, officer and employee compensation, etc.

Engineering Analysis.—This analysis is designed to establish the technological position and operating characteristics of each company. It will include an analysis of the physical layout of the building, the modernity of the processes employed, raw material resources, and the flexibility and efficiency of each company's operations.

Economic Analysis.—This survey will deal with the elements external to corporate operations, such as respective market areas, competitive conditions, the industry outlook, and probable public reaction to the combination.

METHODS OF VALUATION.—If the above analyses do not introduce stumbling blocks, the next step is the establishment of values for the merger, consolidation, or purchase of assets. Although many attempts have been made to evolve formulas for the valuation of business enterprises by engineers, accountants, courts of law, and others, they are of limited use to practical business men in attempting to set a price on a company to be acquired as a part of an expansion program. The facts which must be taken into consideration other than those found in balance sheets and income accounts are so many and diverse that it is rare that a price is set except after long-drawn-out negotiations in which the human equation plays an important part and which may be affected by such factors as:

1. Distribution of the stock.
2. Requirements of large stockholders.
3. Management.
4. State of business.
5. Condition of the securities market.
6. Nature of the consideration.
7. Whether merely assets or both assets and business are being acquired.

Of the factors listed above, the nature of the consideration usually affects the valuation problem most. If the purchase of assets method is used and cash alone is given in payment, valuation of the assets and business of the selling company alone is needed. On the other hand, if

an exchange of securities is involved then it becomes necessary to value the securities given in payment as well.

The valuation of the assets and business of a concern usually involves consideration of several bases of value. Which bases of value will be given most weight may depend upon such factors as the characteristics of the industry and how eager the parties are to effect a combination. The bases of value which may be given consideration are:

1. Capitalized earning power.
2. Goodwill or going concern value.
3. Market value.
4. Investment value.
5. Book value.
6. Cost less depreciation.
7. Reproduction cost.
8. Substitution cost.

Valuation Based on Capitalized Earning Power.—The most common method of valuation applied to intercorporate transfers of assets, favored by legal precedent as well as sound financial principles, is the capitalization of the earning power of the corporation whose assets and business are being valued. This method involves agreement upon two factors: (1) the amount of earning power and (2) the rate at which this amount should be capitalized.

1. Determination of earning power. The usual manner of arriving at a figure which will fairly represent earning power is to average annual net income for a period of, say, 3 or 5 years, on the theory that the best indication of future possibilities is the achievements of the past. A weighted average giving more weight to recent earnings may be used. Adjustments should be made for abnormal operating results, and every effort should be made to reach a figure which would reasonably reflect earning power under normal operating conditions in the future. Account must be taken of whether the business is well-seasoned and well-established, or only recently organized and one whose initial success may prove to be only a "flash in the pan."

As indicated previously, none of the constituent corporations will necessarily accept the earnings figures of the others as reported in their financial statements. Independent firms of accountants and engineers may be engaged to examine the books and the assets and give an impartial report on the record of earnings.

2. Determination of capitalization rate. The rate at which earning power is to be capitalized represents the rate of return which the business in question should earn on its value. This rate has been expressed also as the number of years' earnings required to amortize the purchase price. The rate will depend upon stability of earnings, the rate of increase in earnings, and the many factors affecting the long-term and short-term outlook for the company. The more speculative the business, the higher the capitalization rate will be, and vice versa.

If the acquisition involves the entire assets and business of another concern, the purchasing company will arrive at a rate for capitalizing the earning power of the selling company by determining first its own rate of earnings on invested capital. If a company regularly earns 15% on its own invested capital, it will want to acquire new properties on a comparable basis if possible.

Goodwill or Going Concern Value.—Another method of determining the value of a going concern is as follows: from the average annual earnings for the years taken, a certain rate of return on tangible assets is deducted. The remainder represents the company's excess earning power which, capitalized on the basis of a certain number of years' purchase, gives the value of the goodwill. The value of the goodwill, added to the value of the tangible assets, constitutes the value of the company as a going concern.

Market Value.—In determining the value of an enterprise, market values of its securities are often given a great deal of consideration. Market quotations usually discount the future, giving weight to such intangible yet important factors as the rate of growth in earnings, abilities of the management, prospects of the industry in which the company operates, and strategic values possessed by the company because of patents, location, good banking sponsorship, etc. More important, security holders are largely influenced in deciding whether to accept terms offered them by the relation of these terms to prevailing market values.

This method can best be applied when there is a broad market for the company's securities. To arrive at a fair figure there must be assurance that there are no temporary abnormal factors at play in the market to cause quotations which might be regarded as fictitious. To reduce the chances of error because of such abnormalities, quotations may be averaged over a period of time, provided there have been no wide variations in quotations during the period which might produce an average figure of questionable usefulness in determining values.

The total value of all classes of stock outstanding based on the market quotations agreed upon will represent the value of net assets, that is, total assets less the amount of liabilities. Should this basis of value be accepted this would be the consideration paid if the acquiring company assumes all the liabilities of the selling concern. Otherwise there should be added to the value of the net assets the amount of the liabilities not assumed by the purchasing company.

Investment Value.—Where the concern being sold has been recently organized and represents largely a promotion to develop a new process or invention, investment value is often given weight in determining the sale price. Investment value represents the amount of cash actually paid in to develop the enterprise and bring it up to its present state of productivity. To the amount of cash paid in is added compound interest at an agreed rate from the time of payment to the time when the properties began to pay a return on the investment.

Book Value.—If the accounting policies of the selling company have been conservative and ample charge-offs for depreciation, obsolescence, and inventory losses have been made, book value may represent a fair and equitable basis of value in the determination of purchase price. However, the book value might represent, in part, a write-up of assets through revaluation by appraisal which may or may not be justified. The use of book value has the advantage of convenience and speed, often important considerations in effecting combinations. Then too, the use of book values does not necessitate a field investigation of the properties. If the management of the selling company is hostile to the pur-

chase, it may be impossible to place engineers in the plants and auditors on the books to secure a valuation by more elaborate methods.

Under certain conditions, book values are frequently used in intercorporate transfers of assets. For example, in the depression of 1930–1933, when all values, securities, commodities, real property, etc., were driven down to abnormally low levels, a number of concerns in effecting combinations agreed upon the book value of assets as about the fairest basis for the exchange of stocks under the circumstances.

Cost Less Depreciation.—This basis of value has the advantage over book value in that a write-up of assets would not be included. Fairness of this basis, however, depends to a great extent upon the company's depreciation policies. This basis of value has the disadvantage of not giving weight to changes in price levels, and it is not possible to value intangibles by this method.

Reproduction Cost.—A definition of reproduction cost would be the cost of duplicating the properties to be acquired at prices prevailing as of the date of valuation. Real estate would be valued on the basis of market values of adjacent property. Plant would be valued on the basis of use of the same materials and specifications, and equipment at cost of replacement. However, reproduction would provide a new plant, whereas the plant to be acquired may be many years old. Therefore, proper allowance must be made for the condition of the properties and the cost of bringing them up to the state of efficiency desired. Like cost less depreciation, this basis of value does not provide a practical method of valuing intangibles and, therefore, supplementary methods must be used.

Substitution Cost.—Whereas reproduction cost assumes the construction of an exactly similar plant, substitution cost is based on the cost of constructing a plant which would possess the same utility to the purchaser and would have the same capacity, but which might not necessarily be similar in design and materials or located in the same place. Here again, allowance must be made for the age of the plant considered for acquisition.

Substitution cost, reproduction cost, and actual cost less depreciation are useful as bases of valuation when the plant and other physical properties are most important and the business or goodwill are secondary considerations. These bases of value are most commonly used among concerns producing bulk commodities and other unbranded goods, where price rather than brand name is the determining factor in marketing the product.

ACCOUNTING PROBLEMS IN ASSET TRANSFERS.—For accounting purposes, the acquiring company must distribute the total consideration paid among the various assets taken over, as it would otherwise be impossible to compute depreciation and to account for individual assets. In recording the acquired assets on the books of the buying, consolidated, or merging company, book values, market values, or replacement values may be used. It is sometimes argued that since the transfer in a consolidation or merger does not constitute an actual sale, as is true in a purchase of assets, assets acquired in merger or consolidation should be entered at the values carried on the books

of the absorbed or constituent corporations. But there is a change of possession from one corporate entity to another in both merger and consolidation, and for accounting purposes the transfer may be considered as in effect a sale. The assets may, therefore, be entered at appraised, market, or replacement values. However, care must be taken not to ignore the essential legal elements in the transaction. Courts construe combinations not by what they are called but by their inherent nature, and the precise steps used in carrying out the combinations determine in their eyes the nature of the combinations.

Valuation of Plant and Equipment.—As the transfer of assets is in the nature of a sale from one corporation to another, current market values are ordinarily the logical basis for valuation, except where, as in the case of public utilities, regulatory authorities prescribe otherwise. If they are not available, then the nearest approach to market values should be adopted. Land may be taken at appraised value. Where the plant is small and particularly if it is suited to a variety of uses, market value can usually be readily determined. Large plants are rarely the subject of individual sale, and therefore have no determinable market value. Accordingly, the method of valuation employed is usually reproduction cost, that is, the current cost of construction, with proper allowance for the present physical state of the property. The plant and equipment are appraised on the basis of replacement cost less depreciation for wear and tear as well as for obsolescence, which is frequently referred to as the "sound value" of the plant. However, proper regard must be had to the productive efficiency of the plant—whether it is a modern factory with up-to-date equipment with internal arrangements properly planned to make for efficient and economical production, or whether it is an archaic plant conducive to high costs of production as compared with more modern plants.

If the plant is to be carried on the books of the acquiring company at a higher value than it has been on the books of the selling or constituent company, care should be exercised in determining that such an increase is justified, for it may be questioned later by disgruntled stockholders or by creditors. This is particularly true where the acquisition is financed by exchange of stock.

The **original cost** accounting requirements of the Federal Power Commission and many state public service commissions prescribe that the excess of the purchase price of utility property over the original cost to the first user thereof be amortized on the purchaser's books in a period of usually 10 to 15 years. (Paton, Accounting Policies of Federal Power Commission, Jour. Acctcy., vol. 77.)

Effect of Plant Valuation on Production Costs.—Consideration must also be given to the effect which new values assigned to plant and equipment will have on the cost of production and consequently on the net operating results. If the transfer of assets is made in a period of rising prices, so that the plant will be carried at a higher value than it has been on the books of the selling company, heavier depreciation charges will add to the production cost and reduce the margin of profit on sales, although, if selling prices of the products are rising at the same time the effect of increased depreciation charges may be completely offset. Under reverse conditions, when the general level of prices is declining

and replacement cost of the plant, less depreciation, is below the book value given it by the selling company, depreciation charges based on a lower plant value will reduce production costs and increase the profit margin. Here also, the resulting reduction in cost may be entirely balanced by the lower price the company may be getting for its product.

Valuation of Intangible Assets.—If the company whose business is acquired has been successful, the probabilities are that the total value of the tangible assets determined in the manner described above will be substantially less than the consideration paid for the business as determined by capitalization of earnings. The difference will be the value of the intangible elements of the going concern, generally known as "Goodwill," "Goodwill, trade-marks, and trade names," "Goodwill and patents," etc. Inasmuch as this excess of consideration over tangible asset values taken over represents an actual investment, such items may be carried on the balance sheet as an asset by the purchasing company. This practice is recognized as legitimate, although because of the popular prejudice against such items on the balance sheet many concerns prefer not to list them among their assets. The prejudice is due to abuses to which the practice has been subjected in the past.

The following definition of goodwill, given in Story on Partnership, has been cited with approval in numerous court decisions:

> Goodwill may be defined to be the advantage or benefit which is acquired by an establishment, beyond the mere value of the capital stock, funds or property employed therein, in consequence of the general public patronage and encouragement which it receives from constant or habitual customers on account of its local position, or common celebrity or reputation for skill, affluence, punctuality, or from other accidental circumstances or necessities, or even from ancient partialities or prejudices.

Valuation of Tangible Assets of Failing Concern.—If the concern taken over is a failing one, the value fixed for its business is likely to be less than the replacement or market value of the tangible assets, in which event there would be no goodwill item to be entered on the purchasing company's books. If the acquiring company follows conservative accounting practice, it will carry the assets taken over at the consideration paid. Apportionment of this cost among the various assets on the balance sheet may offer some difficulties when it is below market or replacement value for the assets. However, values need not be arbitrary or left entirely to the play of judgment, but may be proportionate to book replacement values.

From a managerial viewpoint there is an advantage in placing assets purchased on the books at market or replacement value, when this is below cost. Because of such purchase, the management may achieve good operating results merely because depreciation allowances will be smaller on the lower asset values. The use of current values instead of actual cost causes the accounting records to perform their proper function of measuring operating results with adequate provision for depreciation.

Valuation of Current Assets.—The transfer of current assets of one business to another does not usually involve accounting problems comparable to the valuation of plant and equipment on the acquiring company's books. Current assets will generally be transferred to the books of the acquiring company at the same amount as shown on the seller's

or constituent corporation's books. The only exceptions would be receivables of doubtful liquidity and inventory which has declined in value. In such a case, restatement of book values would be proper practice.

Effect of Merger or Consolidation on Surplus.—Whether any addition to the surplus of the absorbing concern results from the merger or consolidation will depend, first, on the securities issued by it, and, secondly, on the values assigned to the assets of the absorbed concerns. If the par or stated value of the securities issued equals that of the capitalization of the absorbed concerns and the book value of their assets is continued on the books of the absorbing concern, then the surplus accounts are transferred intact to the latter corporation. Whether this transfer changes the character of the surplus and renders it paid-in surplus, or whether earned surplus of the absorbed corporations continues as such on the books of the absorbing corporation, are questions which depend for their answers on the nature of the consolidation or merger and provisions of the statute authorizing the combination. Statutes of many states are silent in regard to treatment of surplus in consolidations and mergers.

FINANCIAL STEPS IN PROMOTING A COMBINATION.—The financial steps involved in a business combination are similar to those involved in the promotion of a new enterprise. Some one conceives the idea of forming a combination. Next, the feasibility and profitability of the idea are explored and, if the results are favorable, a financial plan will be devised and presented to the parties at interest. The initiative may be taken by the management or representatives of one of the constituent corporations, in which case it is commonly termed an inside combination; or it may be taken by outside interests—usually a professional promoter or investment bankers. The advantage of an outside promotion of a combination lies in the fact that the professional promoter can maintain a neutral position in the negotiations and the interested parties tend to regard his opinions with more confidence.

A promoter usually employs one or the other of two approaches in effecting a combination. In what is termed the **bargaining method** the promoter estimates what the earnings will be after the combination has been completed through taking actual combined earnings of the constituent companies and adding savings expected from the combination. These pro forma earnings are then capitalized at a rate which is assumed to be a fair rate of capitalization at the time. The promoter then proceeds to negotiate the acceptance of securities, representing their capitalized value by the constituent corporations, on terms which will usually leave him an amount sufficient to compensate him for his services. In the **option method,** the promoter procures options on the assets or business of the several corporations, dealing with each separately on the best terms that can be obtained. Ordinarily, the option is based on a cash consideration, but when the time comes to take up the option securities of the new or surviving corporation are offered as alternative consideration to the security holders of the constituent corporations. The promoter usually protects hmself against possible refusal of the stockholders of the constituent companies to accept the new securities by arranging with an investment banking syndicate to buy the

securities not taken up by owners of constituent concerns who demand cash for their holdings.

DETERMINING BASIS OF SHARE EXCHANGE.—The terms on which the purchasing, merging, or consolidated corporation will distribute its shares to shareholders of the acquired corporations are usually based on the following factors:

Relative Earnings per Share.—Most enterprises are valued by capitalizing their earnings. What period of earnings should be used and what rate of capitalization employed? The nature and record of the enterprise and its industry and prospective economic conditions will largely determine the answers to these questions. Furthermore, stability of net income available for dividends will be affected by the capital structure of the corporation—large senior security issues will impart a leverage character to the common stock of a company. Similarly, the trend of earnings must be given proper weight as indicative of a growing or declining enterprise.

Relative Book Value per Share.—A comparison of the book value per share of each corporation's stock indicates the respective net worth and the relative capital investment represented. As a practical matter it should be recognized that stockholders who have made large investments in their holdings are going to insist that some weight be given to this fact even though current earnings on such capital investment may be relatively small. The shortcomings of book value as a basis of share exchange lie in the fact that it is not indicative of current value and the fact that it is a poor basis for comparative values due to the nonuniformity of accounting methods employed by different concerns. A pre-combination accounting analysis could make financial statements of different businesses comparable, however.

Relative Net Working Capital per Share.—This factor will indicate the relative contribution by each company to the liquid assets of the combination. Since a strong net working capital position is an important prerequisite to a successful combination, and since owners can normally withdraw liquid assets for their own use, this factor must be given considerable weight.

Relative Market Value per Share.—Where stocks are traded in on the securities market, it is possible to compare relative values placed on the shares by the public. Often, however, security holders feel the market price does not adequately reflect the value of their holdings, and insist that the more fundamental factors already mentioned receive greatest weight in setting the terms of exchange.

The above factors provide a basis for negotiation. Less tangible factors that may affect the terms finally agreed upon are:

Hidden Assets.—A corporation may own assets which are not producing earnings currently, but which are worth substantially more than their book value, such as timber, oil, or natural gas properties which may eventually produce large earnings, but are not being exploited currently.

Strategic Elements.—In some combinations the share exchange may be affected by the fact that one corporation controls certain valuable

processes or has an excellent research department which at the time of the combination are not fully reflected in its earnings. Security owners will want these advantages recognized in the terms of exchange.

Relative Strength of Management.—One corporation may possess a management of outstanding skill and reputation, and weight may have to be given to this factor. In some cases, however, it can be argued that superior management has already been reflected in that company's earnings and the market value of its stock.

Bargaining Factors.—The terms of the share exchange may reflect to a considerable degree the relative skill of the participants in bargaining.

Combination by Lease

LEASES AS A MEANS OF EXPANSION.—In industries where the investment in fixed assets is heavy and the return is relatively stable, a lease of assets may be found the most suitable method of combination. This device has been used most in the railroad, street railway, petroleum, and communications industries.

The chief advantage of this method of combination is that no cash payment or issue of securities is required to obtain use of additional facilities. Negotiation and effectuation of leases are relatively simple. The consent of only the shareholders of the lessor corporation is required.

Disadvantages of the lease become apparent in times of depression when fixed rentals payable by companies which have resorted to this method of expansion may become burdensome. Higher fixed charges may affect adversely the credit of the lessee, especially since leased property cannot be placed under the lessee's mortgage bonds. Also, economic changes may cut into the earning power of the leased properties, so that, unless the lease has contingent clauses to guard against such eventualities, the lessee corporation may find itself with outmoded facilities the earning power of which will not be sufficient to cover even a part of the fixed rental.

Double taxation results from leases, furthermore, since the courts have held that lessor corporations are subject to the corporate income tax even if the rental is paid directly to the lessor's stockholders.

LEASE AGREEMENTS.—Essentially, a lease of all or substantially all the assets of one corporation to another resembles an ordinary real estate lease. The lessor concern turns over its property to the lessee for a stated term of years, under specified conditions. In return, the lessee pays the lessor a rental and covenants to pay taxes and other expenses, and at the termination of the lease to return the property in as good a condition as that in which it was received.

Intercorporate leases go far beyond the ordinary lease of real estate in that they provide for the transfer not only of the lessor's real property, but also of the personalty, including stocks or bonds which the lessor may hold in subsidiary companies. Stocks may be assigned to the lessee to enable it to vote them and exercise control over the subsidiaries in place of the lessor.

If a lessor corporation happens to be a lessee in relation to the property of other corporations, these leases are assigned to its lessee so that the latter will have complete control over all properties operated by the lessor. Furthermore, the lessor assigns to the lessee its rights, franchises, privileges, and interest in outstanding contracts, in order that it may enjoy the full use of the leased property precisely as though the property were its own.

A lessee is entitled to all income derived from the operation of leased property. So that it may operate and finance the properties and enter into all necessary contracts, the lessee is appointed the lessor's agent. Moreover, the lessee may be given the right to sell land and other leased property, provided it replaces assets sold with others of equal value. To give the lessee capacity to enter into such transactions, it may be made the lessor's lawful attorney. On the other hand, the lessee takes the property subject to all existing debts, liens, and other incumbrances, and assumes the lessor's other obligations under outstanding leases and other contracts. The lessee undertakes to protect the property by bringing suit in the name of the lessor at its own expense, to defend all suits brought against the lessor and to hold it harmless against all costs, losses, damages, and claims.

STATUS OF LESSOR CORPORATION.—As a result of the lease, the lessor or **proprietory company** may become little more than a shell. The only property that may remain in its possession may be its corporate seal, the stockholders' and directors' books, and the stock and transfer books. Even the nominal expense of keeping these records is usually paid by the lessee. The lessor company's only source of income may be the rental, which may be paid as dividends directly to its stockholders. On the other hand, it has no expenses to meet. All operating expenses of the property, as well as interest on its obligations, and some or all taxes are defrayed by the lessee, which also undertakes to satisfy other claims that might arise against the lessor as the result of lawsuits.

Corporate Existence and Acts of Lessor.—The lessor continues to function as a corporation. Its stockholders will hold annual meetings to elect directors, who will meet occasionally to take such action at the request of the lessee as may be necessary so that all legal formalities may be observed in connection with the issue of additional stock or bonds or other corporate transactions.

The terms of the lease may bind the lessor to act or refrain from acting in practically all corporate matters at the will of the lessee, which thus takes over for the period of the lease all its corporate powers. On the other hand, the lessee corporation must pay promptly the rental and interest on the lessor's obligations, and fulfill other covenants of the lease. Any default in this respect will, by the conditions of the lease, operate to terminate the agreement and permit the lessor to take possession of the property and file suit for damages for breach of the lease contract.

Power of Corporations to Lease Assets.—A corporation's power to lease its assets is similar to its power to sell its assets as an entirety. Like the sale of assets, leasing all its property is not a part of the ordinary business of a corporation, and hence it is not within the power of its directors to execute such an agreement. Such a lease requires

action by the stockholders, which must be unanimous unless the statute permits action by a stated majority, as is generally the case.

Regulated corporations, such as railroads and public utilities, require approval of a lease of their property by regulatory commissions having jurisdiction over them.

The Interstate Commerce Act empowers the Interstate Commerce Commission to authorize acquisition of control of one carrier by another "under a lease or by the purchase of stock or in any other manner not involving the consolidation of such carriers into a single system for ownership and operation," when such control is found to be in the public interest. The Commission's approval must also be obtained when a railroad assumes the liabilities of another corporation, including a lessor.

STATUTES GOVERNING LEASE OF ASSETS.—In practically all states, statutes have been enacted permitting corporations, both private and quasi-public, to lease their property if approval of a certain majority of the stockholders has been secured. Frequently the same provisions apply to leases and sales of assets, authorizing such transactions if a stated majority of the voting stockholders approve at a special meeting called for the purpose. This majority may be a bare majority, two-thirds or three-quarters, according to the particular statute.

The provisions apply to lessor companies which surrender possession of their property, and not to the lessees. A corporation may lease another by action of its board of directors, unless the charter requires the approval of stockholders for such contracts.

Dissenting stockholders under a number of statutes may demand the fair value of their shares in cash, if necessary, after an appraisal conducted as prescribed in the statute. Creditors of the lessor corporation cannot prevent the execution of a lease except on the ground of fraud.

Special statutes in a number of states apply to railroads and public utilities, the lease of which requires approval of the Public Service Commission. The right to make a lease may be restricted by statute to corporations domiciled within the state, or to cases where the lessor and lessee corporations are engaged in similar lines of business.

INDUSTRIAL LEASES.—Leases are seldom resorted to by industrial companies to effect combinations, except among mining, oil and gas companies, department stores, and motion picture chains, and the property leased in these cases may consist of little more than real estate. The earning power of a manufacturing or trading company rests in large measure on its goodwill, and it is not practicable as a rule to transfer this intangible asset without selling all the assets and allowing the vendee to use the vendor's name. Where a business is based on a well-protected patent or trade-mark, the earning power could be transferred to a certain extent by the lease of this intangible asset along with the tangible assets. However, there are serious obstacles in the way of such agreements. The successful exploitation of a patent, for example, depends greatly upon the ability of the management, and this may not be acquired by the lessee corporation. Moreover, the obligation assumed by the lessee corporation to pay a rental is a fixed charge, equivalent to the payment of interest on a bonded indebtedness. Manufacturing and trading concerns ordinarily do not want to burden themselves with heavy fixed charges.

RAILROAD LEASES.—A number of large railroad systems have been built up through the amalgamation of small connecting lines, to a considerable extent by leases. In many instances, the lease was favored to accomplish this end because no financing was needed. While the lessee railroad might have little or no stock interest in the lessor road at the time of the execution of the lease, it has been customary to acquire stock ownership by later purchases, with many leased lines finally being absorbed through merger.

FIXED RENTALS.—Practically all important leases involve a fixed rental. Commonly these rentals take the form of a fixed rate of dividend payable on the stock of the lessor corporation. The amount of stock on which the dividend is payable may be increased during the term of the lease, where it is provided that additional shares may be issued for capital improvements.

Contingent rentals may be based on (1) gross earnings of the leased properties from all sources or (2) net earnings of the leased lines. These contingent rentals are features of the older leases executed when the earning power of leased lines was not predictable.

Guaranty of Rental.—In addition to obligating itself to the lessor corporation to pay the rental, a lessee may guarantee payment to the lessor's stockholders by specific endorsement on each stock certificate. By virtue of this guaranty, stockholders can sue the lessee corporation directly in their own right in the event of default. Under the Bankruptcy Act, however, such endorsement does not make a material difference in the position of guaranteed stock issues.

DIFFICULTIES IN DRAFTING EQUITABLE LEASE AGREEMENTS.—Leases of corporate property usually run for extended periods of time. Railroad leases for the most part cover from 50 to 999 years, and may be for perpetuity. There are cases where a lease runs for the life of the lessor, and if that is limited the lease may be renewable with the renewal of the lessor's charter. In Pennsylvania, perpetual leases are considered sales.

Because of changes which may take place during the long periods covered by leases, disputes are likely to arise over the interpretation of lease provisions. It is not always possible for those drafting the agreement to foresee and provide for all of the contingencies that may arise during the lease's life.

For example, many leases were written before the 16th Amendment to the Constitution legalized income taxes, and many leases did not specify whether the lessee or the lessor would be liable for the payment of income tax on the lessor's income. The Northwestern Telegraph Co. in 1871 leased its properties to the Western Union Telegraph Co. under a 99-year lease. The lease provided that the rental should be paid directly to the stockholders, without mention of income tax. Since the rental was paid directly to its stockholders, Northwestern had no funds to pay the taxes. After vain attempts in the courts to collect the money either from the lessor or the lessee, the Treasury turned its attention to the stockholders. In some cases it assessed individual owners of Northwestern stock for back taxes. The Travelers Insurance Co., as a holder of 2,000 shares, objected to this assessment and appealed to the U. S. Tax Court, but that tribunal in 1946 upheld the Commissioner of

Internal Revenue. In a number of other cases, the Treasury attached the lease rental to secure income taxes due it by the lessor corporation, and the amount of dividend received by the lessor's stockholders was reduced by the income tax paid on such income.

MERGERS TO END LEASES.—Because the Treasury levies an income tax upon the net income of a lessor corporation, the lease device is distinctly unfavorable from the taxation standpoint. Hence, a number of leases have been terminated through merger of the lessor into lessee corporations. In the case of the Delaware, Lackawanna & Western Railroad, the lessee was enjoined from paying rentals to stockholders of the lessor corporations until the question of tax liability had been settled. Subsequent to this decision mergers were consummated which changed the D. L. & W. from a lessee to a railroad owning its properties directly. As a result of this unification, the company strengthened its financial structure by reducing fixed charges and eliminating possible income tax liability on rentals due under the terms of the various leases.

Holding Companies

USE OF HOLDING COMPANY METHOD OF COMBINATION.—Acquisition of control by a corporation of one or more other corporations through stock ownership has become a very common method of effecting business combinations in practically all fields of enterprise. The use of this method of combination has extended even to commercial banking, where legal restrictions limit the establishment of branches.

Effective control over one corporation by another may be exercised with varying degrees of stock ownership. Usually a majority interest is necessary to insure the election of the subsidiary's directors by the holding company, particularly in a moderate-sized company at whose meetings a large proportion of the stockholders are likely to vote either in person or by proxy. In larger corporations, effective control of a subsidiary can often be exercised with minority stockholdings, for most small stockholders have no interest in use of the voting power in such cases.

DEFINITION AND TYPES OF HOLDING COMPANIES.—A holding company is one which holds stock in other companies for purposes of control rather than for mere investment. If a corporation owns a majority of stock in another with no idea of exercising control, but simply for the return which the investment will bring, it is not an actual holding company, although it may be regarded potentially as such. For example, an investment trust may happen to own a majority of the stock in a business corporation, but instead of voting the stock directly and controlling the company, it may be satisfied to send in its proxy for its stockholdings to the management in the same manner as other stockholders.

A corporation which has acquired a controlling stock interest in a number of other corporations may be a pure holding company or a holding and operating company. In the former case, its assets will consist solely of its holdings of stocks and bonds, cash, and advances it

may have made on short- or long-term account to subsidiary companies. Its chief sources of income are the dividends, interest, and perhaps fees received from these companies. The subsidiaries in turn may be subholding or operating companies.

Where a law defines a holding company, such statutory definition takes the place of the above definition, which is based on common usage, in the application of the statute. Thus, the Public Utility Holding Company Act defines a holding company, for its purposes, as "any company which directly or indirectly owns, controls, or holds with power to vote, 10 percentum or more of the outstanding voting securities of a public-utility company . . ."

Industrial Holding Companies.—The United States Steel Corp. has been a holding company from its first organization in 1901. It was the result of a promotion by the banking firm of J. P. Morgan & Co., which acquired the stock of the more important steel manufacturing companies of the time and consolidated the stock ownership in the newly organized holding company. It has since made acquisitions of stock interests in other companies, but has remained a pure holding company.

To take an example in quite a different field, American Home Products Corp. was organized in 1926 as a pure holding company to acquire the entire capital stocks of Wyeth Chemical Co. and affiliated companies, including The Larned Co. (makers of Hill's Cascara Quinine) and Deshell Laboratories, Inc. (makers of Petrologar), and the business of Edward Wesley & Co., a co-partnership manufacturing Freezone. Since that date, American Home Products Corp. has followed the policy of acquiring the assets of other companies and transferring them to its subsidiaries engaged in the same business. Thus, when it was decided to enter the food field, American Home Products Corp. acquired three companies—Harold H. Clapp, Inc., G. Washington Coffee Refining Co., and P. Duff & Sons, Inc.—and transferred them to its subsidiary, American Home Foods, Inc. American Home Products Corp. now controls subsidiaries operating in six divisions: (1) pharmaceutical and biological, including ethical products; (2) foods; (3) nutritional and vitamins; (4) household specialties like floor waxes, polishes, and insecticides; (5) packaged drugs advertised to the public; and (6) cosmetics and toilet preparations, including dentifrices.

One of the largest combinations in the food industry in recent years was effected early in 1946 through the holding company device when Airline Foods Corp. was formed to control a group of corporations engaged in the processing and manufacture of foods and the distribution of food products.

Holding Company with One Subsidiary.—Practically all pure holding companies own the stock of at least two companies, since the purpose of their organization is to unify control of two or more companies. However, it is sometimes advantageous to form a holding company to hold the stock of a single operating company. The object then is not combination but to achieve some other end. It may be desirable, for example, to leave intact an operating company organized under the laws of one state or nation and yet take advantage of the incorporation laws of another state. In that event, a holding company is formed which will exchange its stock for that of the operating company and thus become

a pure holding company for that single subsidiary. Later it may acquire stock control of other companies as opportunity offers.

Holding-Operating Companies.—The other form of holding company is a corporation which is at once an operating and a holding company. A manufacturing company, for example, may hold stock interests in one or more subsidiaries. Whether it is generally considered a holding company will depend upon the proportion of its assets represented by stockholdings. Examples of industrial companies which are primarily holding companies but also conduct operations on their own account are Warner Bros. Pictures, Inc. and American Cyanamid Co.

On the other hand, the General Motors Corp. is primarily an operating company. Although initially organized as a holding company, in 1916 it was reorganized as an operating company and acquired the assets of its subsidiaries.

Many parent corporations are primarily operating companies, with stockholdings in subsidiaries constituting a comparatively small portion of their total assets. Frequently the subsidiaries are not acquired but are incorporated to conduct some part of the business that can better be carried on by a separate corporation.

Pure holding companies may result from an internal reorganization of a business. Thus, in 1927, the Standard Oil Co. (N. J.) organized three subsidiaries, the Standard Oil Co. of New Jersey, the Standard Shipping Co., and Stanco, Inc., which took over the parent company's manifold activities. The parent company, which had previously been both a holding and an operating company, thereby became a holding company only. The entire capital stock of each subsidiary was acquired by the parent company.

LAWS RESPECTING FORMATION OF HOLDING COMPANIES.—The old common law doctrine in this country is that a corporation cannot be an incorporator of another corporation or purchase shares of another unless such power is expressly conferred upon it by statute. The ground for this doctrine is that such a transaction is generally foreign to the objects of the corporation's creation. (Fletcher, Law of Private Corporations.) But if the circumstances are such that the purchase of stock in another corporation is a necessary and reasonable means of accomplishing the objects for which the corporation was organized, such purchase is permitted even without specific authority of a statute. A corporation in any event can take stock in payment of a debt due it or in payment on a sale of property, if it has no intention to hold it as investment or to control the other company. It can also accept stock of another corporation as collateral against a loan it has advanced, unless this is expressly prohibited by statute or charter provision.

Prior to 1888, all holding companies which came into prominence derived their power from special legislative acts giving them charter privileges denied other corporations. In a few states, the power to hold stock of another is still expressly limited by law, but the limitation applies to only certain types of companies. Most statutes now permit corporations to hold stock in another corporation for whatever purpose.

TRUSTS AS COMBINATION DEVICE.—Fifty or more years ago when no holding company statutes existed, the trust was used to effect large business combinations. Shareholders of the companies in-

volved assigned their stock to trustees who took title to and voted the shares. In exchange they received certificates of beneficial interest in the trust that entitled them to dividends declared by the trustees out of the trust's funds and, in the event of dissolution, a ratable portion of the net assets. The trustees thus became stockholders of the several companies, and by electing their directors exercised common control over them.

The original Standard Oil Trust was the most famous example of this legal form of business combination. It was attacked in the Ohio courts, and a decision was rendered dissolving the trust as an illegal grant of authority by the Standard Oil Co. of Ohio to the Standard Oil trustees. Courts of other states also frowned on the use of the trust device to control corporations because of the fact that it deprives stockholders of their voting power. These court decisions resulted in the holding company replacing the trust as a device for intercorporate combination.

Control Through Voting Trusts.—Opposition to the use of the trust device to control corporations has abated. A number of statutes expressly authorize voting trusts upon compliance with certain conditions. The use of the Massachusetts trust in lieu of the corporation as a form of business organization has also tended to weaken the prejudice against employment of the device. It is employed occasionally to effect combinations, but its use is restricted to smaller concerns. Smaller companies at times find it convenient to combine by having their stockholders place their shareholdings in the hands of one or two trustees, receiving certificates of beneficial interest in return.

Statutes Permitting Holding Company Control.—About the time the Standard Oil and the Sugar trusts were being attacked in the courts, New Jersey passed a statute permitting corporations organized in that state to own shares in other corporations. This pioneer statute was followed by others, and the holding company has become the principal instrument of combination through stock control.

ACQUISITION OF STOCK CONTROL.—Where ownership of the stock of a company in which a controlling stock interest is sought is concentrated in a few hands, the owners may be sought out and dealings carried on with them directly. This is not practicable in the case of companies of any size whose stockholders may be numerous and widely scattered. Under such conditions other methods must be resorted to, particularly if a majority of the stock is sought.

Purchase for Cash.—If it is decided to pay cash for the stock, purchasing may be done in the open market, by private negotiations, or both. It is often impracticable to acquire any sizable quantity of the stock by market purchases. Such buying, and the rumors to which it may give rise, will raise the price of the stock before the desired number of shares has been secured. Usually the buying will be spread over a considerable period of time and done as quietly as possible to avoid such a run-up in the price. By concealing its accumulation of the stock through having it transferred to dummy holders or carrying it with brokers, the purchasing company may succeed in keeping the management of the company being acquired in the dark as to changing ownership until it has accumulated the desired block of stock and is ready,

just before the annual meeting or earlier, to announce its control of the company.

Acquisition of Control Through Exchange of Stock.—When it is planned to acquire control by an exchange of stock or other securities, an offer must be made to the stockholders of the company sought. Usually it is advisable first to approach its directors and large shareholders to enlist their cooperation in the plan. These discussions will determine the terms. If, with the announcement of the terms, the directors issue a statement recommending the exchange of stock as in the best interest of the stockholders, organized opposition may be forestalled and stockholders will be so much more likely to agree to the exchange.

The offer frequently stipulates that the offer of exchange will become operative only if holders of a stated majority of the stock agree to turn in their stocks. In that event, stockholders desiring to exchange their shares will be asked to deposit their stock by a certain date with a named depositary under a deposit agreement.

The consideration paid in the acquisition of stock in other companies may consist of cash or securities. Where a large number of shares is involved, cash settlement will usually be avoided as it would require new financing on the part of the purchasing company. Stock is the most common consideration, but the purchasing company may issue bonds in full or part payment. Sometimes, collateral trust bonds are issued, with the stock acquired pledged as security. The bonds can be issued directly in exchange for the stock or sold to raise cash if the desired stock is to be acquired for cash.

DEALINGS BETWEEN PARENT AND SUBSIDIARY.—Parent-subsidiary relations largely depend upon whether the subsidiary is wholly or only partly owned. When there is a minority interest outstanding, the subsidiary must be treated as a separate and independent entity, if the parent is to avoid possible liability. The parent may require the payment of interest on advances it makes to the subsidiary, and even demand the deposit of collateral security, provided the advance is really required for the subsidiary's business. Whether a subsidiary is wholly or partly owned, the parent company is legally entitled only to the share of a subsidiary's profit which is distributed by formal dividend declaration. It should not, therefore, accrue on its own books the entire profit made by a subsidiary, so as to reflect in its accounts the subsidiary's surplus or undistributed earnings. This should be done only when the financial statements of the two companies are consolidated, and presented as such.

Financing Subsidiary's Capital Requirements.—A subsidiary may be financially self-contained and not require financial assistance. If, however, it is compelled to seek additional funds, these may be obtained from the parent company where the latter has the money or can raise it on better terms than can the subsidiary. Advances may be made on open book account, represented by interest-bearing demand notes given the parent company, or funded by the issuance of bonds or stock which the parent company may retain as permanent investments. On the other hand, if the subsidiary enjoys a good credit rating with in-

vestors, the parent may resell the subsidiary's securities it holds, with or without a guaranty of dividends or interest, and principal at maturity of bonds.

Sometimes a subsidiary's credit is so well established that it can do its own public financing with stocks or bonds, and enjoy a regular line of credit with banks. If it issues stock to the public, this may be preferred or a special class not possessing voting power in order that the parent company's control may not be disturbed.

ADVANTAGES AND DISADVANTAGES OF THE HOLDING COMPANY DEVICE.—Combination by acquisition of a stock interest in one or more companies has distinct advantages and certain disadvantages.

Advantages of Holding Companies.—The major advantages obtained are as follows:

1. It is not necessary to secure formal consent of stockholders, or to pay off a dissenting minority in cash, as in the case of the purchase of assets, consolidations, or mergers.
2. A going concern is taken over intact and continued as such, so that there is no loss of goodwill with either the public or employees. This is particularly true if the stock acquisition is effected quietly by private purchase from a comparatively few large stockholders.
3. If cash is paid, a sum far less than the net value of the assets of the acquired subsidiary need be invested to acquire control. The holding company device makes it possible to acquire control of large properties with a minimum of investment, for only that part of the voting stock of the subsidiary sufficient to exercise control need be purchased. If the subsidiaries, and perhaps the holding company as well, are financed in part by senior nonvoting securities, control can be secured with a relatively small investment. A holding company can pledge stock of subsidiaries owned as security for a collateral trust bond issue, to reduce its investment further. This "pyramiding" was carried to an extreme in the public utility field, and was a main reason for the collapse of several large utility holding company systems.
4. No assumption or guaranty of a subsidiary's liabilities is necessary. Thus, the parent company is insulated against the liabilities of subsidiaries, if the "instrumentality rule" is not applied. This insulation from liabilities of a subsidiary may be of considerable importance when (1) expansion occurs into a field subject to unusual risks, or (2) future regulation by the government may compel separation of subsidiaries from parent control.
5. The holding company has an advantage over the merger or consolidation in that it is easier to divorce an unprofitable unit from the whole. Examples can be cited of merchandising corporations conducting their real estate operations through independent subsidiary corporations whose failure during the depression of the early 1930's did not involve the whole enterprise in financial disaster. Moreover, the independence of a subsidiary may encourage management to halt unprofitable operations more readily than it would be if the losses were incurred by a department of the parent concern.
6. The holding company device makes possible combination of enterprises that could not legally be fused under direct ownership of one corporation.
7. The holding company is advantageous where it is desirable from an administrative viewpoint to decentralize operations by products, territories, or otherwise. The holding company structure has been

effectively used to segregate unlike businesses or different operating functions; to obtain local capital; to preserve goodwill, and to meet regional regulation and taxation situations.

Disadvantages of Holding Companies.—The ownership of subsidiary companies has certain drawbacks, the seriousness of which will depend on circumstances. The more important disadvantages are:

1. Minority interests may prove troublesome. If subsidiaries are only partly owned, the minority stockholders may be a source of annoyance to the holding company. They may charge the holding company with diverting earnings from the subsidiary by improper accounting methods. They may also restrict the management's ability to adjust operations to changing conditions and new opportunities. Even though a holding company may have the statutory power to effect the desired change, a recalcitrant minority interest may seek the intervention of a court of equity on the ground of fraud, and the parent may find it necessary to buy out the minority interest. Partly because of this possibility, many industrial companies seek to eliminate minority interests in subsidiaries as soon as this can be done.
2. The expense of creating and maintaining separate corporate organizations. Franchise taxes must be paid by each corporation, and each corporation must submit reports to the state and regulatory agencies. The costs of records of directors' and stockholders' meetings must be considered. Particularly in times of slack business when expenditures are being curtailed in every direction, the number of subsidiaries may be reduced through absorption of subsidiaries by the parent or other subsidiaries.
3. A holding company structure may prove unstable. If subsidiary earnings fall off, income may cease to flow to the parent. If a subsidiary is unable to pay dividends on a cumulative preferred stock issue with contingent voting power held by the public, control may be lost by the parent. If a subsidiary defaults on its obligations and is reorganized, the parent company's stockholdings may be wiped out altogether.
4. Present income tax laws work to the disadvantage of a holding company. A parent company must own 95% or more of its subsidiaries' voting stock (and 95% of each class of nonvoting stock, other than preferred, of at least one subsidiary) to file a consolidated return. This requirement serves to offset the advantage of controlling a subsidiary by holding a majority or less of the voting stock. Furthermore, a penalty of 2% is imposed on the filing of a consolidated tax return. In addition, the holding company has to pay an intercorporate dividend tax of 15% of the corporate normal and surtax rate on dividends received. Tax considerations have been a major reason for the simplification of many holding company structures during the past decade. However, there are still many instances where a holding company structure gives net tax advantages, as when a motion picture chain incorporates each theatre separately so that it is taxed as a small business.
5. Unfavorable legislation affecting holding companies, especially in the public utility field.

MAINTAINING CORPORATE EXISTENCE AFTER TRANSFER OF ASSETS.—A company may acquire the stock of another corporation and have the latter's assets transferred to itself or some other subsidiary. Instead of dissolving the newly acquired subsidiary, however, it may maintain its corporate existence by the payment of the annual franchise tax in order to prevent others from appropriating its name, which may have a trade value.

CREATION OF SUBSIDIARIES BY PARENT COMPANY.—Subsidiary companies are not only purchased and acquired to effect combinations, but are also created by the parent company. For various reasons, the parent company may segregate certain assets by turning them over to a newly formed subsidiary, all of whose stock it will own with the exception possibly of directors' qualifying shares. The amount of assets turned over and the size of the capital stock with which the subsidiary is organized will depend on the function it is to perform and the financial relationship it will maintain with the parent organization. The purpose of its creation may be such that it will not require any considerable amount of capital. On the other hand, it may need a great deal of capital for expansion. If it is to conduct business on the parent company's credit, having its notes endorsed and its accounts guaranteed by the latter, its capital stock may be of a nominal amount. In that event, the parent company is actually liable for the subsidiary company's liabilities.

Subsidiaries Organized for Legal Reasons.—Frequent recourse is had to the organization of subsidiary companies to circumvent legal obstacles, to avoid burdens otherwise imposed by the law, or to take advantage of a particular law. Under our federal system which makes every corporation created in one state foreign in every other state, subsidiaries are organized to do business in other states, where restrictions are imposed on foreign corporations or they are required to pay special taxes and fees. The Central Railroad Co. of New Jersey set up the Central Railroad Co. of Pennsylvania in 1944, to avoid paying taxes in New Jersey on earnings from its operations in Pennsylvania.

State laws of a restrictive or regulatory character may make it advisable to form a subsidiary to conduct some of the activities of the business. To prevent question of authority under Pennsylvania law, the Lehigh Coal & Navigation Co. segregated in its subsidiary, the Lehigh Navigation Coal Co., Inc., its coal lands and other mining properties, the transfer taking the form of a sale of assets for the subsidiary's capital stock. A timber company may encounter difficulties in acquiring the right of way for a private logging railway to a tract of timber land it owns. It can organize a railroad company which, as a common carrier, enjoys the right of eminent domain and is able to condemn land necessary for its road. A general business corporation, among its other activities, may be engaged in a business which makes it subject to regulation by the State Public Service Commission. It will free itself of considerable annoyance by incorporating the public utility business in a separate subsidiary that will be so regulated.

Subsidiaries to Facilitate Management and Operations.—If the parent is engaged in two independent lines of business, segregation of the two activities by organizing a subsidiary may promote more effective management and more economical and efficient operation. Thus, in 1930 the Aviation Corp. of America transferred its air transportation activities, by means of a sale of assets, to a new subsidiary, the American Airways, Inc. (now American Airlines, Inc.). It was explained at the time that the transfer would eliminate duplicate work by several sets of operating and traffic personnel, and would make for more efficient operation and greater convenience and safety to the flying public.

The internal corporate organization may follow the lines of the functional divisions of a business. One subsidiary may be formed to take over the sales division. Thus, Johns-Manville Corp., to simplify its corporate and accounting structure, organized the Johns-Manville Sales Corp. to take over its domestic sales activities. Other departments may be similarly incorporated. Thus, in 1945, International Telephone & Telegraph Corp. organized the International Telecommunication Laboratories, Inc., to group all scientific and research activities of the organization in one separate corporation. Subsidiaries are also organized to hold and develop real estate. When the electrification of the New York Central Railroad within New York City and suburban limits made the space above the sunken tracks in the Grand Central terminal area available for building purposes, a subsidiary was organized to lease easements to tenants for erecting office buildings, hotels and apartments. After combinations of large corporations, the rearrangement of operations necessary to realize anticipated economies is often effected through the organization of subsidiary companies.

Contract Evasion Through Subsidiaries.—A corporation may make certain undertakings which later handicap its financial and other arrangements. If permitted by their nature, these obligations may at times be legally avoided by the formation of subsidiary companies. A conspicuous example of such practice is the organization of subsidiaries to evade the after-acquired property clause in trust indentures securing mortgage bond issues.

Subsidiaries to Secure Goodwill.—When branch plants or selling organizations are established, it may be desirable to incorporate them separately and place prominent local men on the board. By this means, this particular division of the company's business becomes more intimately identified with the community it is intended to serve and local goodwill is obtained.

The segregation in a subsidiary of some new line of business taken on by a corporation may be desirable to protect the established goodwill of the parent in connection with its old line. Thus, a publishing house of many years' standing may have developed a nation-wide reputation for handling books appealing to more intellectual tastes. If it desires to handle in addition publications with a wide popular appeal, it may organize a new subsidiary for this new business, so that the public interested in more serious works may not get the impression that the company is changing the character of its publications.

On the other hand, an acquired subsidiary may be stripped of all assets and become an inactive corporation whose existence will be maintained merely to prevent appropriation of its name, with its trade value, by others who desire to enter the same field.

Foreign Subsidiaries.—Manufacturers having factories, warehouses, or sales offices in foreign countries quite frequently find it advantageous or necessary to have them separately incorporated under the laws of those countries. Often, the parent would labor under legal handicaps if it owned the factories or other facilities directly. National prejudices may hamper the business of a foreign enterprise in that country. A minority interest in the subsidiary may be offered to the public in the foreign country in order to establish its character as locally owned. The

Ford Motor Co. and the International Telephone & Telegraph Co. have followed this policy to advantage.

Subsidiaries to Limit Parent Company's Liability.—When a corporation is launching some hazardous business, one that is highly speculative or which may possibly give rise to heavy claims for damages, it can limit the possible loss by organizing a subsidiary to engage in that particular activitv. Thus, when the Continental Motors Co. decided to engage in manufacture of low-priced automobiles some years ago, it formed a subsidiary corporation, Continental Auto Co., to carry on this business, limiting the risk of loss to the amount of capital stock purchased in the subsidiary.

Intercorporate Readjustments.—A holding company organization with a number of subsidiary companies may from time to time effect intercorporate readjustments to fit changing economic conditions, tax laws, regulatory statutes or financing requirements. Assets and functions may be reparceled among existing subsidiaries for more advantageous grouping. New subsidiaries may be formed to take over certain activities of the old, or subsidiaries may be combined with others or with the parent company. The legal devices used will be the same as between independent corporations. Transfer of assets will occur through sales, consolidation, or merger, and stockholdings may be sold by one subsidiary to another or to the parent corporation.

ABUSE OF PARENT-SUBSIDIARY RELATION.—A holding or parent corporation owning a controlling interest in a subsidiary is considered by the courts to assume a fiduciary relationship to the minority stockholders and to be "charged with the duty of exercising a high degree of good faith, care, and diligence for the protection of such minority interests. Every act in its own interest to the detriment of the holders of minority stocks becomes a breach of duty and of trust, and entitles to plenary relief from a court of equity." (Hyams v. Calumet & Hecla Mining Co., 221 Fed. 229, 537 [C.C.A. 6th, 1915]). This doctrine has been extended and clarified by more recent Supreme Court decisions. (See Deep Rock doctrine below.)

Protection Afforded Minority Stockholders by Courts.—Minority stockholders have secured relief from the courts when a parent company has exploited the subsidiary in its own interest and adversely to the interest of the latter's minority shareholders. Such cases have involved diversion of business and income from a partly owned subsidiary to the parent company or a wholly owned subsidiary, particularly when the parent and the partly owned subsidiary were competitors. In flagrant cases, the parent has attempted to bankrupt the subsidiary by depriving it of lucrative business so as to come into full control. When a parent has, through the controlled board of directors, attempted to foist on the subsidiary unfavorable contracts, including sale or lease of assets and intercorporate loans, or has failed to observe contracts with the subsidiary, minority stockholders have likewise received the protection of the courts. (McLeary v. Erie Telegraph & Telephone Co. et al., Misc. 3, 76 N.Y.S. 712 [N. Y. Sup. Ct., 1902].)

The courts have also intervened at the instance of minority shareholders to enjoin consolidation of the subsidiary with the parent or

other subsidiaries, or the dissolution of the subsidiary, even though the procedure was in strict conformity with the statutory provisions, when the palpable reason for the consolidation, merger, or dissolution was to get rid of some contract between parent and subsidiary, unfavorable to the former, such as a lease of assets (Boyd v. New York & Harlem R. R. Co., 220 Fed. 174 [D. C. N. Y., 1915]), or when the terms of a proposed consolidation or merger were unfair to minority stockholders of the subsidiary.

INSTRUMENTALITY RULE.—One important reason for the use of the holding company device has been to insulate the parent and each subsidiary from liabilities incurred by another subsidiary. As a result, creditors have found on occasion that they cannot collect debts due them because insufficient assets are held by the debtor subsidiary, although such debts may have been incurred for the benefit of the parent or the holding company system as a whole. The courts have attempted to meet this situation through the application of what has been termed the "instrumentality rule." The "instrumentality rule" holds that a parent company will be liable for debts of a subsidiary where it can be shown that the parent uses the subsidiary as a mere "instrumentality," "agency" or "adjunct," so that one is the "alter ego" of the other.

An analysis of these liability-transfer cases reveals that a long and varied list of facts have been cited in an attempt to establish an instrumentality relationship. (Powell, Parent and Subsidiary Corporations.) Some courts have been prone to an extreme to disregard the "corporate fiction" and hold a subsidiary a mere instrumentality of the parent where the subsidiary is formed with a nominal capital stock and has no independent organization through which to function, the main purpose of its existence being apparently the evasion of liability or some law. According to Douglas and Shanks (Insulation from Liability Through Subsidiary Corporations, Yale Law Jour., vol. 39) observance of the following rules will prevent a parent company from being liable for liabilities of its subsidiary:

1. The subsidiary should be set up as a separate financial unit sufficiently strong to bear the normal strains to which it is subjected.
2. The day-to-day business of the two corporations should be kept separate, as well as their financial and business records.
3. The two management structures should function separately—separate meetings of the boards of directors, etc.
4. Those with whom both corporations come in contact should be kept adequately informed of their separate identities.

The same authorities give the following rules to prevent a parent from being liable for claims on the subsidiary's contracts:

1. Subsidiary should have adequate capital.
2. There should be no direct meddling or intervention by the parent in the affairs of the subsidiary, in disregard of normal corporate control procedure through which the subsidiary elects the directors and officers whom it desires, who then direct its affairs.

According to some authorities, analysis of the facts of these cases was too often inadequate, so that the courts lapsed into reliance on empty phrases such as "instrumentality," "alter ego," or "adjunct" with little consideration of the factors motivating such arrangements. It has been

stated that the courts too often have based decisions on mere mechanics of corporate organization, instead of attempting to appraise the fairness of the outcome of such organization.

The Deep Rock Doctrine.—Parent-subsidiary relationships have been clarified to a large extent by a series of United States Supreme Court decisions of which the first and most important was the "Deep Rock" case, Taylor v. Standard Gas & Electric Co., 306 U. S. 307 (1939). This case involved the attempt of the parent company, Standard Gas, to assert a prior claim, as creditor on account of advances, to the assets of its subsidiary, the Deep Rock Oil Corporation, which was being reorganized. The court subordinated the claim of Standard Gas to publicly held preferred stock of Deep Rock. The basis of the decision was (1) the history of spoliation, mismanagement, and faithless stewardship of the affairs of the subsidiary by the parent to the detriment of public investors, and (2) the failure of Standard Gas to capitalize the subsidiary adequately by providing it with sufficient equity capital when it was formed. As expanded in subsequent decisions, the "Deep Rock Doctrine" holds that a holding company is a fiduciary. Its powers are powers in trust and must be exercised for the protection of the entire community of interests in the corporation—creditors as well as stockholders. The application of this doctrine has been of increasing importance in the field of intercorporate relations.

PUBLIC UTILITY HOLDING COMPANIES.—The holding company reached its highest development in the public utility field, particularly among electric light and power and gas companies. Less than ten holding-company systems formerly conducted the major portion of the electric light and power business of the country. These systems comprised a holding company at the top of the structure, with one or more intermediate subholding companies between it and the operating companies. The major holding companies did not in every case own a majority of the stock of the subholding or operating companies, but a sufficient minority interest was held to insure effective control in view of the widely scattered stockholdings.

A number of factors brought about the dominance of holding companies in the utility industry. Early control of basic patents by the Bell System and the advantages of a unified system of country-wide communication explain the great success of the American Telephone & Telegraph Co. Earlier combinations of local operating units in contiguous territories were formed to avoid cut-throat rate reductions and increase efficiency. Later giant combinations of scattered, diverse utilities were attributed by Bonbright and Means (The Holding Company) chiefly to the greater financial strength of a large utility system as compared with a local property, and the efficiency and economy of centralized management or supervision by organizations of experts. Other reasons were the desire of engineering and manufacturing groups to secure control of a maximum number of utility properties in order to sell them commodities and services, and the desire of bankers to control utility managements in order to underwrite their security issues. The Electric Bond & Share Co. was originally organized by the General Electric Co. to give financial assistance to utility companies purchasing its products. The Stone & Webster system was formed in 1924 in order

to prevent companies for which the firm of Stone & Webster furnished engineering and management service from falling into other hands. The United Corp. was organized by the banking firms of J. P. Morgan & Co., Drexel & Co., and Bonbright & Co. to retain control over a large group of utilities in the East.

Unsound Financial Practices.—In the years of depression following 1929, unsound practices developed in the financing of some public utility holding companies. Several holding companies were forced to lean heavily upon their operating subsidiaries for financial support. "Upstream" loans from subsidiary to parent were made, and the operating companies' credit was even used to provide funds for unrelated ventures of the controlling financial interests. Dividend policies of operating companies at times were guided by stockholders' demands rather than by the need for funds on the part of the holding companies, even where such distributions were unwise.

Such abuses, while by no means typical of public utility holding companies generally, caused the enactment of the Public Utility Holding Company Act of 1935.

REGULATION OF PUBLIC UTILITY HOLDING COMPANIES.—Under the Public Utility Holding Company Act of 1935, the federal government has obtained drastic regulatory powers over holding companies controlling electric and gas operating companies. These holding companies are not subject to the jurisdiction of the state public service commissions, who have supervision only over utility operating companies. The Act aims to eliminate abuses which have characterized the formation and operation of holding companies.

The Public Utility Holding Company Act, which provides for the dissolution as well as the regulation of utility holding companies, is administered by the Securities and Exchange Commission. The S.E.C. supervises security transactions by holding companies and their subsidiaries, the acquisition of securities and properties by holding companies and proxies, intercompany loans, and service, sales, and construction contracts which holding companies or nonoperating subsidiaries may have with operating utility subsidiaries.

Registration of Utility Holding Companies.—Companies subject to the Act are holding companies having electric and gas subsidiaries in more than one state, and their subsidiaries. Such holding companies are required to register with the Securities and Exchange Commission. The registration statement includes complete corporate information, and balance sheets and income statements for several years. Unless a holding company is registered with the Commission it is barred from the use of the mails or from engaging in any form of interstate activity, including the sale and distribution of its securities or those of its subsidiaries. The Commission may upon application exempt, from the obligation to register, holding companies whose operations are predominantly intrastate in character, or which are only incidentally or temporarily holding companies, or whose chief source of income is public utility companies operating abroad.

Regulation of New Security Issues of Utility Holding Companies.—Before a registered holding company or any of its subsidiaries may

issue securities, it must file with the S.E.C. a declaration including information and documents required to register a security under the Securities Act of 1933, and any additional information which the Commission may require. Issue of securities is not permitted until the declaration has been approved by the Commission and becomes effective. This provision does not apply to certain short-term note issues. Before approving issuance, the S.E.C. must be satisfied that the character of the security is justified by the financial set-up of the issuing company and that the terms of sale are reasonable and not detrimental to the interests of the public, investors, and consumers. In May, 1941, Rule U-50 was adopted by the Securities and Exchange Commission which requires competitive bidding in the sale of securities (other than short-term notes) by a registered holding company or any of its subsidiaries.

Acquisition of Securities and Properties.—A holding company or any of its subsidiaries may not purchase securities of other companies or properties without the Commission's approval. In making application for the approval of a purchase of securities, the company must submit information regarding the business and finances of the issuing company, the character of the securities, and the terms of purchase. Similar data must be included in an application for approval by the Commission of any acquisition of properties or any other interest in a business. In either case, whether securities or properties are purchased, the Commission, before granting permission, must satisfy itself that the new acquisition will not tend to undue concentration of control of public utility companies or unduly complicate the capital structure of the holding company system making the acquisition, and that the consideration paid for the securities or properties is reasonable.

Simplification and Integration of Holding-Company Systems.—The provisions of the Act relating to simplification and integration of holding company systems constitute its most drastic and significant part. The simplification standards [section 11b(2)] are two-fold: (1) the capital structure of a holding company and each subsidiary must not be unduly complicated, and a fair and equitable distribution of voting power must exist among the stockholders, and (2) the intercorporate structure is limited to three layers of corporate entities, i.e., a holding company cannot have a subsidiary whose subsidiary is itself a holding company (grandfather clause).

The integration provisions [see section 11b(1)] limit holding companies to a single integrated system. The Act defines an integrated system for electric power and light public utilities as "one or more units of generating plants and/or transmission lines and/or distributing facilities, whose utility assets, whether owned by one or more electric utility companies, are physically interconnected or capable of physical interconnection and which under normal conditions may be economically operated as a single interconnected and coordinated system confined in its operations to a single area or region, in one or more states, not so large as to impair (considering the state of the act and the area or region affected) the advantages of localized management, efficient operation, and the effectiveness of regulation." The S.E.C. has interpreted the integration provisions of the Act to limit a holding company to one compact operating system which must be in one or more adjoining states.

After affording the company an opportunity to be heard, the Commission may issue any necessary orders to compel a holding company or its subsidiaries to eliminate operations not necessary for a single integrated public utility system, and to make such adjustments in its corporate structure as will effect simplification as required by the statute. To make an approved simplification or integration plan effective, the S.E.C. may apply to a court for an order enforcing the terms of a plan or seeking the appointment of a trustee to take possession of, administer, and dispose of the properties under the direction of the court.

Supervision of Intercompany Loans, Dividends, Security Transactions, Etc.—Regulation and supervision by the S.E.C. of other activities of holding company systems are provided for by the Act. The law prohibits:

1. "Upstream" financing, or borrowing by holding companies from their subsidiaries.
2. Contributions in support of any political candidate or party by a holding company or any subsidiary.

The following activities may be carried on by the holding company or its subsidiaries only in accordance with regulations prescribed by the Commission:

1. Intercompany loans within the holding-company system other than loans by subsidiaries to the holding company.
2. Payment of dividends and acquisition, retirement or redemption of securities.
3. Sale of any assets, including securities of other companies.
4. Intercompany transactions within the holding-company system.
5. Solicitation of proxies.
6. Lobbying before Congress, the Securities and Exchange Commission, or the Federal Power Commission.

The Act also aims to prevent abuses in connection with contracts which holding companies, or companies especially organized for the purpose, have with subsidiary companies.

Periodic Reports and Accounts and Records.—The Commission may require annual, quarterly, and other periodic reports from registered holding companies and mutual service companies. Officers and directors of holding companies are required to file a statement of the securities they own in the holding company or any subsidiary, and to report monthly any change in their holdings. Officers and directors may be required to refund to the corporation any profit from the purchase and sale, or short sale and covering purchase of any securities of an affiliated company, made within a period of less than 6 months. No officer or director of a bank or trust company, and no partner or representative of an investment banking firm or of any corporation controlled by a bank, trust company, or investment banking firm, may serve as an officer or director of a holding company or any of its subsidiaries, except as the Commission may permit.

Regulation of Interstate Electric Utility Companies Under the Federal Power Act.—An amendment to the Federal Water Power Act, known as the Federal Power Act, subjects to regulation by the Federal Power Commission electric utility companies transmitting and selling

electric energy across state lines. The Federal Power Commission is granted authority to divide the country into regional districts, and within each district the companies are allowed to coordinate their facilities for the generation, transmission, and sale of electricity so as to assure an abundant supply of electric energy with the greatest possible economy. Rates which electric companies may charge for current are under the control of the Commission, with whom schedules must be filed. On its own motion or upon complaint the Commission may modify any schedule of rates after a hearing, or require changes in arrangements made among companies in a district. The Federal Power Commission also passes on the issuance of new securities by companies under its jurisdiction, as well as the purchase, sale, or lease of properties of a value in excess of $50,000 and mergers or consolidations. The Commission is empowered to prescribe the accounts and records the companies shall keep and rates of depreciation on their properties.

Without the Commission's sanction there may be no interlocking directorates between the companies and no officer of one company may serve as an officer of another company. Likewise, subject to the Commission's approval, a director or officer of an electric utility company may not serve in a similar capacity with any organization doing a security underwriting business, or with any company supplying electrical equipment to electric utility companies. Where provisions relating to the regulation of electric companies by the Federal Power Commission are in conflict with provisions of the Public Utility Holding Company Act, the latter prevail.

Use of Massachusetts Trust.—In Massachusetts, no foreign corporation (incorporated in another state) owning a majority of the capital stock of a public utility in that state may issue stocks or bonds based upon the property of that utility unless such issue has been specifically authorized by Massachusetts. As none has been so authorized, this law has prevented foreign holding companies from obtaining direct control of local utilities in that state. They have instead resorted to indirect means of acquiring control through the organization of voluntary associations or Massachusetts trusts.

The set-up of one such association, the New England Gas & Electric Association, was explained by its organizers as follows:

> The ownership and control of the stocks of the subsidiary companies are vested in the trustees of the association, the majority of whom are citizens of Massachusetts. Ownership and control of the common shares of the association are held personally by its organizers, who are citizens of New York, important stockholders and officials of the Associated Gas & Electric Co., a New York corporation and active in the management, not only of that company, but of the group system of which it is the chief unit. It is intended by the organizers and the trustees of the association to establish and maintain close affiliation in operation and management between the associated group and the utilities owned or controlled by the association so that these utilities may so far as practicable benefit by the advantages of group management. Such affiliation, as distinguished from ownership or control by the associated company (which would be simpler and in our judgment better from every point of view), has been adopted as the most advantageous policy now legally possible with respect to any Massachusetts utilities in which the association is interested, because Section 10 of Chapter 181 of the Massachusetts General Laws provides for dissolution of any Massachusetts public utility if a foreign corporation, which

owns or controls a majority of the utility's stock, issues securities or evidences of indebtedness based upon such stock.

REGULATION OF OTHER HOLDING COMPANIES.—There is little regulation of holding companies in the industrial field with the exception of air transport industry, which is regulated by the Civil Aeronautics Board. The Clayton Anti-Trust Act prohibits the acquisition of stock of one corporation by another if the effect is "to substantially lessen competition."

In the railroad field, the Emergency Transportation Act of 1933 gave the Interstate Commerce Commission jurisdiction over the acquisition of stocks of railroad companies for control purposes by any person after June 16, 1933. Railroad holding companies formed prior to 1933 are not affected, for this statute, unlike the Public Utility Holding Company Act, is not retroactive in character.

There are few pure holding companies among railroads. In most cases, the large railroad systems consist of parent operating companies that own stock of subsidiaries or lease them, for they were developed before the organization of pure holding companies was possible under state statutes.

Bank holding companies have been subject to special regulation since 1933. They are under the jurisdiction of the Board of Governors of the Federal Reserve System.

Other Types of Corporate Combinations

CARTELS.—A cartel may be described as an agreement among business enterprises to limit competition among themselves. The agreement may take the form of a written contract or an oral **gentlemen's agreement.** While prosecuted in the United States under the anti-trust laws, cartels have been encouraged, as well as supervised, by European governments.

Types.—Cartels may be divided into five basic types. Some belong to one type, while others are a combination of several.

1. **Price cartel.** This type sets either uniform or minimum prices. It represents an attempt to eliminate price cutting within an industry through contractual agreement, rather than by combination.

2. **Division of output.** In this type, limitation of production and division of output by quotas for each member are jointly agreed upon, to fit supply to demand. The production cartel is often a forerunner to a price cartel.

3. **Division of territory.** The territorial cartel assigns market areas on an exclusive basis to its members. A cartel may assign a territory to a group of its members, but not to any individual members.

4. **Single selling agency.** A more advanced type of cartel involves the use of one selling agency which sells for all the members, distributing orders among them under a prearranged schedule of quotas. Such a cartel may provide also for pooling profits, which are divided among the members in agreed proportions.

5. **Patent pools.** In this type of cartel the associated companies agree to interchange patents. Several methods have been employed to set up

a patent pool. The companies owning the patents may retain title to the patents and license other members to use them. Another method involves transfer of title to the patents to a trustee, who licenses members of the cartel to use them. A third method calls for formation of a new corporation for the purpose of holding title to the patents.

Domestic and International Cartels.—Prior to 1900, a number of domestic cartels, known as pools, operated in the United States. Application of the Sherman Anti-Trust Act ended operation of the pools as restraints of trade. In recent years, the Anti-Trust Division of the Department of Justice has vigorously prosecuted cartels, even of a very informal character.

Thus, on June 10, 1946 the United States Supreme Court held that the "Big Three" tobacco companies—American, Liggett & Myers, and R. J. Reynolds—were guilty of monopolistic practices and conspiring to restrain trade. The court held that a showing of actual exclusion of competitors was not necessary to establish violation of the anti-trust laws, but evidence showing conspiracy to establish a monopoly and the existence of the power and intent to establish a monopoly were sufficient to constitute violations of the anti-trust laws. It was shown that the three firms had informal price-fixing agreements; that they conspired to exclude undesired competition in the purchase of domestic type flue-cured tobacco and burley tobacco; and that a clear course of dealing existed despite the absence of written or express agreements.

International cartels have been numerous and powerful. It has been estimated that when World War II began there were more than two hundred of them, controlling or considerably influencing over 30% of the world's trade including such essentials as rubber, tin, steel, chemicals, and quinine. (See The Control of Cartels—January, 1945, After the War Bulletin published by the Institute on Postwar Reconstruction of New York University.) Great Britain and the governments of most continental countries encouraged cartels, while Germany used them as a means of waging economic warfare during the years preceding the outbreak of military hostilities as well as during World War II. In the United States, mild application of the anti-trust laws during the 1920's and early 1930's encouraged American business enterprises to join international cartels so as to secure themselves from undue foreign competition, to preserve domestic markets against the intrusion of outside competition, and to obtain domestic monopolies on the distribution of foreign products or on the development in this country of products and processes developed abroad. A series of suits were brought by the Department of Justice in the 40's to compel American corporations to end cooperation with foreign cartels.

Webb-Pomerene Act Associations.—American exporters have been at a disadvantage in selling in foreign markets where they compete with some of the large European cartels. The Webb-Pomerene Act was enacted by Congress to exempt from the provisions of the Sherman and Clayton Acts associations engaging solely in export trade. These export associations enabled United States exporters to form united fronts on prices, market quotas, and sales policies as do foreign cartels. However, when export associations join in agreements which restrain trade in the United States, they are held illegal. The Anti-Trust Division of the

Department of Justice has brought anti-trust proceedings against several export associations. Participation in cartels by American business faces stricter government regulation.

Advantages and Disadvantages of Cartels.—Arguments for and against use of contractual arrangements to regulate competition have been summarized as follows:

For cartels.

1. Through common sales and research organizations, cartels eliminate costly duplication of activities and thus promote efficient operation.
2. Since prices and production are planned for whole industries, cartels reduce business fluctuations.
3. By eliminating price wars and other wasteful competitive practices, cartels protect capital investment in going concerns.
4. Cartels help stabilize international trade by control over prices, output, and distribution.
5. Cartels promote technological advances by exchanging patents and know-how.

Against cartels.

1. Restrictive activities of cartels lower the standard of living.
2. Since they are committed to protect vested interests, cartels tend to reduce the speed of adjustment to new conditions.
3. By instituting private quotas and tariffs, cartels often nullify government efforts to reduce trade barriers.
4. Cartels may threaten national security. This is more of a threat when cartels in some countries are government-controlled, while those in other countries are entirely privately controlled.
5. Cartels keep high-cost producers in business, thus raising costs and selling prices.

TRADE ASSOCIATIONS.—A trade association is "a voluntary organization formed to promote the mutual interests of enterprises engaged in the same kind of business." Members of a trade association are usually competitors. The name of the association generally indicates the industry or type of business in which they engage. As a nonprofit organization, the trade association does not engage in business on its own account. Most important industries have trade associations, the members of which may be manufacturers, wholesalers, or retailers. Some embrace only a limited segment of an industry, while others include all phases of manufacture and distribution.

Trade associations were first employed in the United States in the 1850's, but prior to 1900 they were primarily concerned with production control and price regulation. Hence, during this early period it was difficult to distinguish the trade association from the pool or cartel. With the passage of the Sherman Anti-Trust Act and its active enforcement around 1903, business turned to trade associations for legal cooperative action. Local and state associations were supplemented by national associations as markets became nation-wide.

Functions of the Trade Association.—The following may be noted:

1. Collection and dissemination of statistics relating to production, prices, and sales. In many associations this is the only function performed by the organization. Such data give each member a picture of the industry's condition at a given time, and facilitate intelligent planning.

2. **Political representation.** Trade associations are in excellent position to present facts about the industry, and its viewpoint, to legislative and administrative organs of government, and to aid business concerns in securing the passage of legislation favorable to their economic advancement.

3. **Self-government.** Trade associations often take measures to eliminate abuses and unfair and unethical practices within an industry. Many trade associations provide facilities for commercial arbitration of disputes.

4. **Uniform accounting systems.** The trade association has been of great service in the cost accounting field, where it has assisted backward concerns in the adoption of adequate cost accounting systems. Uniform systems of cost accounting are necessary where the association collects data from its members to compute over-all industry statistics and ratios.

5. **Industrial research.** In many industries, the trade association carries on extensive research programs to widen uses for the products. This has proved necessary to meet competition from other industries.

6. **Market research and advertising.** Analysis of consumer buying habits and demand trends can often be handled effectively on a collective basis through the trade association. Industry-wide advertising also can be done effectively through trade associations.

7. **Other activities** of trade associations include **credit services, studies to eliminate wastes** of production and distribution, solving **transportation problems,** and **cooperative buying.**

It should be noted, however, that a number of the advantages of business combination, including economies in production, distribution, transportation, management and other costs, are not achieved by trade associations. Also, the trade association does not provide the increased sales volume produced by other forms of intercorporate relations.

COMMUNITY OF INTEREST.—The **community of interest** consists of corporations brought within the same sphere of influence by means of common ownership of stock by one person or a small group of persons who are held together by common interest, family relationship or long acquaintance. This influence is often made more effective by the use of interlocking directorates, the same individuals sitting on the several boards of directors. So long as the stockholders remain in agreement, such an affiliation may be as effective in coordinating the policies of two companies as the ownership of the one by the other, or of both by a holding company.

Since such companies will tend to work in harmony with one another, some of the advantages of combination may be achieved. The community of interest has played an important part in the railroad, public utility and industrial fields. The Standard Oil companies constitute an informal community of interest, the holdings of the Rockefeller family in the several Standard Oil corporations constituting a unifying influence.

Interlocking directorates are prohibited by law in several fields at the present time. Thus, the Clayton Act of 1914 made it illegal for an individual to be a director of more than one national bank with deposits and net worth of over $5,000,000, or of more than one industrial corporation with net worth of over $1,000,000 if the companies are, or have

been, competitors. Similarly, the Banking Act of 1933, in connection with the divorce of investment from commercial banking activities, prohibited an officer or director of a Federal Reserve member bank from serving as an officer or director of a securities company. The Transportation Act of 1920 made interlocking directorates in the railroad industry subject to approval by the Interstate Commerce Commission.

A community of interest may be effected without formal steps. Its use, however, is subject to several disadvantages. First, there is no centralized control and its success depends on the influence of the common stockholding interest in separate corporations. Secondly, the advantages of unified large-scale operation are not usually realized. In the third place, a community of interest lacks permanence in that sale of stock by some holders ends the arrangement.

Mutual Stock Ownership.—A community of interest may be effected by mutual stock ownership. The petroleum industry affords several examples, the best known being the Royal Dutch-Shell combination, which was achieved between two previously quite competitive enterprises when each bought a large block of stock in the other. Where such a relationship exists it is easier to effect uniformity in production, pricing and marketing policies. In many cases mutual stock ownership has served as a prelude to fuller combination through merger or consolidation.

Jointly Owned Subsidiaries.—Another variation of the community of interest is the formation of a subsidiary that is controlled jointly by two or more independent corporations which desire to combine their efforts along certain lines. For example, the Brunswick Pulp and Paper Co. is controlled jointly by Scott Paper Co. and Mead Corporation, each owning 50% of Brunswick's capital stock. Brunswick Pulp & Paper Co. was formed in 1936 by the two controlling companies to utilize a new process in the making of bleached sulphate pulp from pine and other indigenous woods. The entire output is sold to the two controlling companies. Similarly, Carthage Hydrocol, Inc. was formed in 1946 by eight corporations, including The Texas Co., The Chicago Corp., United Gas Corp., and Gulf States Oil Co., for the purpose of manufacturing gasoline and by-products from natural gas. The controlling companies wished to share the costs of developing this new "Hydrocol process" on a commercial basis.

VOLUNTARY CHAINS.—A method utilized by small businesses to obtain some of the benefits of large scale operation without losing their identities is the voluntary chain. This device involves assumption of specified managerial functions over a large number of retail stores by a central organization through contract.

An outstanding example of the voluntary chain is the Independent Grocers Alliance, a national organization of independent retailers grouped around their local wholesale grocery houses, which hold exclusive I.G.A. franchises for a defined geographical area. Independent retail grocers concentrate their purchases through the I.G.A. jobbers to which they are attached, and remodel their stores and methods of operation in accordance with I.G.A. specifications. Advertising, credit and collections, merchandising and store administration activities of the independent retail stores come under I.G.A. suggestion and supervision. I.G.A.

wholesalers also adopt systems and procedures in accordance with I.G.A. specifications. Every six weeks, representatives of all I.G.A. wholesalers meet for merchandising conferences.

Other examples of voluntary chains are the independent Rexall chain, with the United Rexall Drug Co. as the central organization, and the Howard Johnson restaurant chain.

SECTION 21

RECAPITALIZATIONS AND READJUSTMENTS

CONTENTS

PAGE

Nature and Causes of Changes in Capital Structure

Changing economic conditions and capital structures 893
Recapitalizations, readjustments and reorganizations 893

Common Stock Recapitalizations

Legal requirements 894
Changes in number of shares 895
Stock split-ups 895
Reverse splits or share consolidation 896
Changes in par or stated value 896
Changes from par to no-par stock.. 896
Changes from no-par to par stock.. 897
Increase or decrease in par or stated value 897
Capital account reductions 897
Methods of effecting capital stock reductions 898
Purposes accomplished by capital stock reductions 898
Arguments for and against capital stock reductions 899
Creditors' interest in capital stock reductions 900
Capital distributions 900
Reclassification of stock 900
Reasons for reclassifying stock capitalization 901

Preferred Stock Recapitalizations and Readjustments

Principles and legal restrictions 902
Purposes of preferred stock readjustments 903
Elimination of burdensome charter provisions 903
Exchange for a lower dividend issue 903
Exchange for other securities 904
Fund arrearages on cumulative preferred stock 904

Funding Preferred Dividend Arrearages

Reasons for funding 904
The legal problem..... 905
Solutions for the legal problem..... 906
Incentive offers 906

PAGE

Solutions for the legal problem—*Continued*
Prior preferreds 906
Merger 906
Delaware statute 906
Public Utility Holding Company Act 907
New York State law 907
Methods of funding arrearages 908
Examples of preferred dividend adjustment plans 908
Use of prior preferred stock 908
Use of bonds 908
Use of dividend arrears certificates 909
Use of conversion feature 909
Use of common stock only 909

Debt Readjustments

Circumstances necessitating debt readjustment 909
Main types of readjustments 910
Extension of maturities 910
Reduction of interest rate 910
Reduction of principal 910
Other indenture changes 911
Inducements to bondholders 911
Legal aspects of debt readjustments 911
Dissenters' rights 911
Mechanics of debt readjustment .. 911
How to effect debt readjustments 912
Negotiation with large holders 912
Presenting the plan 912
Securing assents 912
Establishing effective date 913
A bank loan 913
Debt readjustments under the Public Utility Holding Company Act 913
Small business readjustments 913
Compositions 913
Number of creditors necessary to a composition settlement 914
Acceptance considerations 914
When to agree to compositions 914
Assignments 915
Advantages of assignments 915
Common law and statutory assignments 915
Assignment an act of bankruptcy.. 916
Rights of creditors 916
Assignees 916
Duties of assignees 916

PAGE
Creditors' committees 916
How committees operate 917
Creditor voting trustees 917
Advantages of creditors' committees 917
Disadvantages of creditors' committees 918
Credit adjustment bureaus 918

Intercorporate Readjustments

Changes in corporate structure of a holding company system 919
Reasons for intercorporate changes.. 919
Intercorporate readjustment methods 920
Formation or liquidation of subsidiaries 920
Merger of subsidiaries 920
Merger with lessor corporations .. 920
Liquidation of holding company.... 920
Exchange of securities 920
Simplification and integration under the Public Utility Holding Company Act 920
PAGE
Simplification and integration methods 921

Voluntary Liquidations

Liquidation defined 921
Wasting asset industries 922
Liquidation to avoid insolvency 922
Procedure in voluntary liquidation... 922
Liquidating agency 923

Corporate Dissolution

Meaning of dissolution 923
Methods of dissolution 924
Legislative revocation of charter 924
Dissolution by expiration of charter 924
Dissolution effected by happening of some contingency 924
Dissolution from misuse and nonuse of powers 925
Voluntary dissolution 925

SECTION 21

RECAPITALIZATIONS AND READJUSTMENTS

Nature and Causes of Changes in Capital Structure

CHANGING ECONOMIC CONDITIONS AND CAPITAL STRUCTURES.—The capital structure of a business reflects management decisions over a long period of time and the condition of the security markets at the time of successive security sales. The capital structure may consist of a single class of stock, or it may be complicated by several issues of bonds and preferred stock, the characteristics of which may vary considerably. The rights of each class of security holders are determined by contract. Contract rights of bondholders are set forth in the bond indenture, while rights of stockholders are set forth in the certificate of incorporation and, in some cases, the by-laws. Apart from common stock, rights of security holders are relatively fixed in nature, and can be modified only by proper legal steps.

On the other hand, economic conditions are in a constant state of flux. Fortunes of corporations vary. One enterprise may suffer a long series of operating deficits, whereas another may encounter a sustained period of success. In either event, a remolding of the capital structure may become desirable or necessary to facilitate new financing or for other purposes.

The **surplus** accounts of a corporation bring the par or stated value of the capital stock, together with the liabilities and reserves of the business, into balance with its assets. Surplus reflects the operating results of the business and extraordinary transactions which affect the balance between (a) the company's assets and (b) its liabilities and capital stock. As long as transactions affecting surplus are not catastrophic in nature and changes in economic values are not too sudden or great, no problem arises. But when a corporation experiences persistent operating deficits or a very sharp decline in the value of its assets for whatever reason, a large surplus is needed against which to make charge-offs. Creation of such a surplus may necessitate revamping of the capital structure. Conversely, where a corporation develops very large earning power, it may be sound policy to increase the capital stock through split-ups or stock dividends. Every progressive corporation should have a capital structure that will enable its directors to take prompt advantage of opportunities for expansion and new financing.

RECAPITALIZATIONS, READJUSTMENTS, AND REORGANIZATIONS.—A distinction may be drawn between corporate recapitalizations, readjustments and reorganizations. **Recapitalizations** involve a rearrangement of capital stock only. **Readjustments,** as the

term is used here, involve changes in preferred stock provisions, bonds, or the intercorporate structure of a parent company and its subsidiaries. **Reorganization** is ordinarily used to describe revision of capital structures under the jurisdiction of a court, whether through an equity receivership proceeding or under the reorganization sections of the Federal Bankruptcy Act. Reorganization through the courts permits coercion of dissenters, which may be difficult or impossible in voluntary recapitalizations and readjustments. These distinctions are not observed strictly either by business men or lawyers. The revenue laws, in fact, ignore these definitions and refer to changes of all three types as "reorganizations." Recapitalizations and readjustments take place outside the courts and constitute a change in the form, provisions, or amount of the outstanding securities through voluntary action on the part of the security holders, as distinguished from the involuntary judicial procedure involved in corporate reorganization. Readjustments of a more serious nature are commonly proposed by management when a business is an economic or financial failure. But even a prosperous corporation may find it advantageous to effect a capital readjustment under certain conditions.

Broadly speaking, recapitalizations and readjustments may involve: (a) a change in the size of one or more security issues; (b) a modification of contractual rights of one or more classes of securities; (c) a revaluation of capital accounts; and (d) a revaluation of asset values. While such rearrangements are normally voluntary, legislation like the Public Utility Holding Company Act of 1935 may compel managements to undertake them. Recapitalizations and readjustments cannot be classified easily, since nomenclature is not standardized. Any classification is to a considerable extent arbitrary, for in practice the terms "recapitalization," "readjustment," and "stock reclassification" are often used to describe identical situations.

Common Stock Recapitalizations

LEGAL REQUIREMENTS.—Changes in the number of shares or the par or stated value of common stock require **charter amendment,** and therefore the consent of stockholders as a class. They are usually effected by a vote of stockholders after the directors have passed a resolution recommending the change in the authorized capital stock and the basis on which the newly authorized shares are to be exchanged for the old, which are to be cancelled. What vote of the stockholders is required to sanction the readjustment will depend upon the nature of the adjustment and the provisions of the statute and certificate of incorporation. The **New Jersey** law, for example, authorizes amendments to a corporation's certificate of incorporation to:

> . . . increase its capital stock, decrease its capital stock, or its capital, change the par value of any class or all classes of the shares of its capital stock with par value, change the number of its outstanding shares of any class of stock into a different number of shares of said class, create one or more classes of preferred or prior preference or other special stock, change its preferred or other special stock into one or more classes of preferred or special and/or common stock, change its common stock into one or more classes of preferred or special and/or other common stock, change

stock with par value (of any class or classes) into stock without par value of the same or of a different class or classes or change stock without par value into stock with par value of the same or of a different class or classes either with or without increasing or decreasing the number of shares, provide for funding or satisfying rights, in respect to dividends in arrears by the issuance of stock therefor or otherwise, provide for the creation and issuance of optional rights to subscribe to stock, make other provision for the readjustment or reclassification of all or a part of its capital stock. . . .

Any one of the changes enumerated above requires the vote of two-thirds of each class of stock having voting power. A similar provision is in the **Maryland** statute. The **Delaware** statute prescribes the consent of only a majority of the outstanding voting stock. All three statutes contain the further proviso that the amendment contain nothing that could not lawfully and properly be inserted in an original certificate of incorporation at the time. After the certificate of incorporation has been amended, the final step is to arrange for the exchange of new stock for old.

CHANGES IN NUMBER OF SHARES.—This type of recapitalization involves a split-up, a split-down (reverse split), or a stock dividend, with or without a change in the par value or stated value of the shares.

Stock Split-Ups.—A stock split-up occurs when a class of stock is divided into a greater number of shares without change in the capital account. It involves a reduction in the par or stated value of shares. The American Manufacturing Co., for example, in November, 1945 split its common stock 4 for 1 by issuing 4 new $25 par value shares for each old $100 par value share previously outstanding. The increase in the number of shares could have been accomplished by a large stock dividend, but this would have involved debiting surplus and crediting capital by the par or stated value of the additional shares issued, whereas a stock split-up, involving no change in par or stated value, does not affect the surplus account. Similarly, a stock split-up requires approval of stockholders for requisite charter amendments, whereas a stock dividend is paid at the discretion of the board of directors if authorized but unissued stock is available.

The more common reasons for split-ups are:

1. To increase the number of shares outstanding so as to facilitate a public offering of the stock at a popular price, either by the corporation or large stockholders. High estate and inheritance taxes may compel those in control of **close corporations** to sell part or all of their stock to raise cash. Public sale of such shares is often preceded by a split-up to bring their shares into a more marketable price range. (The Carpenter Steel Corp. split its common shares 5 for 1 prior to a public offering of the stock in 1937.)
2. To capitalize growth and avoid an appearance of excessive per share earnings.
3. To reduce the market price of outstanding stock to what is believed a more desirable price range. Such action frequently increases the aggregate market value of a corporation's stock. Thus, many investors would far rather buy 100 shares at $30 per share, as against 10 shares at $300 per share. A lower selling price may be sought as a prelude to new financing or consolidation, as in the case of the Commonwealth Edison Co. 4 for 1 common stock split-up in 1937.

Moreover, fluctuations in selling price and earnings appear smaller when shares sell at a lower price. A decline in the market quotation from 20 to 18 appears smaller than one from 200 to 180.

4. To widen the distribution of a corporation's stock so as to make less likely concentration of ownership by outsiders who may seek to displace the management. (The Eastern Airlines, Inc. 4 for 1 common stock split-up in 1946 illustrated this.)

Reverse Splits or Share Consolidation.—In years of prosperity when corporation earnings are large and stock market prices are high, the subdivision of shares by means of stock split-ups, stock dividends, and the issuance of stock subscription rights at a low price are frequent. The reverse practice is encountered when earnings and stock prices are low. Some corporations which split their stock in boom years, and others, may find their shares selling at such low prices as to render them unsatisfactory as collateral for loans. The corporation's credit and ability to sell new stock may be affected adversely when its shares are quoted at too low a price. Consolidation of shares may be effected by **increasing the par value** of each share, or the **stated value of no-par shares,** and exchanging one new share for so many outstanding. In the case of **no-par stock without stated value,** the consolidation of shares is brought about by simply reducing the number of shares represented by the capital account. New stock certificates are then issued representing the smaller number of shares, and exchanged for those outstanding. (An example of a reverse split was Cities Service Co. 1 for 10 exchange of stock in 1938.)

CHANGES IN PAR OR STATED VALUE.—This type of common stock recapitalization involves only the par or stated value of the shares, without change in the number outstanding.

Changes from Par to No-Par Stock.—Numerous corporations which originally issued par value shares have subsequently changed to no-par. In many cases, the reason for the change has been to facilitate financing or other corporate transactions, such as new acquisitions, consolidations, and reorganizations in which exchanges of securities are involved. Others have done so because such action seemed to be in conformance with the trend of the times. (The United States Steel Corp. in 1938 issued one share of no-par common stock for one share of $100 par common stock.)

The value at which no-par shares are carried on the balance sheet after the change from par value stock will depend upon circumstances in each case. The capital stock account may be left undisturbed so that the no-par shares, if equal in number to the previous par value shares, will have a stated or capital value equal to the par shares. For example, the United States Rubber Co. in 1928 desired to do some new financing to liquidate heavy bank indebtedness. As its funded debt of $104,000,000 was heavy in relation to its capital stock, consisting of $65,110,000 preferred and $72,842,200 common, it was decided to finance with common stock. Since the stock with a par value of $100 was selling far below par, it was necessary to convert into no-par shares, although the capital stock account remained unaltered at the previous aggregate figure. Stockholders were then offered the privilege of subscribing to new no-par shares at $35 on a share-for-share basis, and the capital stock account was increased by the amount of the consideration received, so

that the additional shares were carried at their paid-in value. In 1938, United States Rubber Co. common stock was changed again to $10 par on a share-for-share basis, so as to create a large capital surplus for asset write-downs.

In making a change from par to no-par shares, the capital stock account may be reduced through transfer to capital surplus of part of the old par value. This is done where it is desired to write down the book value of assets or liquidate them at a loss. The general corporation law of several states prohibits this procedure, however.

Changes from No-Par to Par Stock.—The change from no-par to low par value has become common, since the use of low par values has to a large extent robbed no-par value stock of its advantages. To effect stock split-ups, no-par shares offer no particular advantage over par value shares, since the par value can be reduced virtually to any amount. Legal uncertainties connected with the use of no-par shares and lower franchise and transfer taxes have caused numerous shifts from no-par to low par value.

Increase or Decrease in Par or Stated Value.—When the par or stated value of common stock is increased or decreased, adjustments are made between the capital stock and capital surplus accounts. A decrease in the capital stock account is more common than an increase, since a larger surplus is usually desired.

An increase or decrease in the par value of capital stock requires an amendment of the charter in accordance with the procedure previously outlined. Under the laws of many states, a change in the stated value of no-par stock can be made by the directors, unless the charter provides otherwise.

Many examples might be cited of changes in par or stated value without a change in the number of shares. In 1945 the stockholders of Niagara Hudson Power Co. approved a reduction of the par value of the common from $10 to $1 per share. This reduction was effected for the purpose of making possible the resumption of preferred dividend payments, which had been passed because of the need for effecting large asset write-downs through charges against the surplus account. Similarly, in 1943 the stated value of the no-par common stock of American Locomotive Co. was reduced from $5 to $1 per share. The capital surplus created by this reduction was eventually utilized to eliminate the goodwill item on the company's balance sheet.

A number of banks have increased the par value of their shares by charges against surplus. This has the same effect on the aggregate capital account as a stock dividend, without bringing about an increase in the number of outstanding shares.

CAPITAL ACCOUNT REDUCTIONS.—A decrease in the capital stock account on the balance sheet, and a corresponding increase in "capital surplus," results from a lowering of par or stated value or a reduction in the number of shares outstanding. The disposition of the surplus resulting from stock reduction is regulated by some statutes. In Ohio, for example, stockholders may dispose of such capital reduction surplus in one of the following ways:

1. Immediate distribution, in part or in whole, to the stockholders.
2. Adding it to a surplus account.

3. Causing such surplus to be reserved or appropriated for specific purposes.
4. Limiting the directors' authority otherwise to dispose of such surplus.

Methods of Effecting Capital Stock Reductions.—Methods of effecting a reduction of the capital stock account with an accompanying increase in surplus are:

1. By **retiring shares:**

a. Purchased in the open market at a price which is less than the balance sheet value per share.
b. Purchased under an offer to stockholders to buy shares from them at a given price (less than the balance sheet value) in proportion to their holdings.
c. Purchased from stockholders who offer to sell to the company at specified prices in response to a request for tenders. (The tender prices accepted will be less than the balance sheet value.)
d. Donated to the corporation.

2. By **reducing the par value** of shares having par value, or the **stated value** of no-par shares having stated value, or by diminishing the declared capital in the case of no-par shares without stated value.

3. By **changing stock of par value to no-par stock** of lower stated value; **or vice versa,** by changing no-par stock with stated value to stock with a lower par value; or by changing par or stated value stock to no-par stock without stated value having a smaller capital value; or by changing no-par stock without stated value into stock with a lower par or stated value than the previous capitalized value per share.

4. By **reducing the number of shares** without changing the par or stated value, or the **capitalized value** of shares in the case of no-par shares without stated value, through a reverse split-up.

One or more of these methods may be combined in effecting a capital stock reduction.

Purposes Accomplished by Capital Stock Reductions.—The following are the most common purposes achieved by reductions in capital stock:

1. **Elimination of an earned surplus deficit.** The capital surplus created by the reduction in capital stock is employed to write off the deficit in the "earned surplus" account. This deficit elimination serves to improve the appearance of the balance sheet and allows the corporation to pay dividends from current or subsequent earnings. (The Exchange Buffet Corp. in 1936 and again in 1940 effected capital stock reductions for the purpose of eliminating a profit and loss deficit.)

2. **Writing off goodwill and other intangibles.** Even in normal times, when values are stable or rising, corporations resort at times to capital stock reduction for the purpose of writing down a questionable goodwill or other intangible item on the balance sheet. Goodwill may be written off entirely or to the nominal value of $1 against surplus. If a company already has an ample surplus or is accumulating one very rapidly from current earnings, the goodwill account may be written off against it at once or in instalments, and there is no necessity to resort to the expedient of reinforcing surplus from the capital stock account. A conspicuous in-

stance of this kind was the elimination of a $50,000,000 goodwill item from the accounts of the Woolworth Co. by a series of charges to its surplus account extending over a period of several years. On the other hand, Cushman's Sons, Inc. in 1945 effected a capital stock reduction of $3,600,100, of which $3,269,305 was employed to reduce the goodwill account from $3,269,306 to $1 and the balance of $330,795 was added to the capital surplus account.

3. **Writing down tangible asset values.** Writing down of values against the capital stock account was extended to all types of the assets during the depression of the '30's. **Investment trusts** found that their security holdings declined in market value to a point where surpluses were extinguished and capital stock impaired. They were generally unable to pay dividends on their preferred stock until this impairment was corrected, although current earnings sufficed for such disbursements. By revaluing security holdings on their books at current market quotations, securing a surplus for the corresponding charge-offs by reducing their capital stock, future earnings were made available for dividend payments.

Industrial companies wrote down fixed assets, inventories, and other assets to lower replacement values and obtained surplus to effect these charge-offs by reducing their stock capitalizations. Many also set up larger reserves against doubtful receivables and other claims through charges against such newly created surplus. The American Smelting & Refining Co., for example, in 1935 reduced the stated value of its no-par common stock from $33.33 to $10 a share. The $42,698,600 of capital surplus, thus created, was used to reduced the company's property account by almost 50%.

4. **Creating general reserves.** The transfer from the capital stock account to capital surplus may also be used to set up general reserves for such purposes as (a) future revaluation of assets or (b) general contingencies. For example, in 1944 Virginia Electric & Power Co. reduced the stated value of its no-par common stock in the amount of $6,590,705 to set up a reserve for future property adjustments.

Arguments For and Against Capital Stock Reductions.—Most capital stock reductions are effected for the purpose of writing down asset values. The pros and cons of asset write-downs may be summarized as follows:

Pro—

1. Such write-downs enable industrial corporations to adjust their operations to a lower price level. This is particularly important for a corporation whose fixed assets constitute a large proportion of total assets. The write-down serves to bring depreciation deductions in line with replacement costs, and unit costs are reduced by such smaller depreciation charge.
2. Net earnings are increased by the decreased charge for depreciation, strengthening the corporate credit and the ability to effect new financing.
3. Dividend payments are facilitated by smaller depreciation deductions.

Con—

1. Asset write-downs may result in inadequate depreciation charges, an overstatement of earnings, and excessive dividends.

2. If replacement costs rise again later, underaccrual of depreciation reserves will be exaggerated.
3. Reduced asset valuations may make it more difficult to justify a corporation's depreciation deductions with the Bureau of Internal Revenue.

Asset write-downs should not be made because of declines in the price level that may prove temporary. It is always justifiable to reduce capital so as to write off obsolete assets. Similarly, if there is good reason to believe that replacement values will remain lower than book values, write-downs are justifiable to bring a corporation's asset valuations and depreciation allowances into line with those of its competitors.

Creditors' Interest in Capital Stock Reductions.—Capital stock reductions are effected by stockholder action. Creditors normally have no voice in the matter, even though their interests may be affected because the capital stock affords a margin of protection to them. But if they can prove that their interests will be adversely affected, the courts may intervene. The law presumes that creditors and others enter into dealings with the corporation with full knowledge of its power to reduce its capital stock. But the Delaware statute, like many others, provides that capital stock may not be reduced unless the assets remaining after the reduction are sufficient to pay the debts. Any attempt by a corporation with heavy liabilities to effect a drastic cut in its capital stock by purchasing and retiring shares, or by making capital distributions to its stockholders, would probably be enjoined as a fraud upon creditors.

Many of the statutes also require a corporation to publish the facts of a reduction in capital to protect the public in future dealings with the corporation. A certificate reporting such reduction must be filed with the Secretary of State or otherwise, in the same manner as the certificate of incorporation.

Capital Distributions.—Distributions of part or all of the capital of a corporation may be made with the consent of the stockholders. Where they are paid as **liquidating dividends,** they are made with a view to winding up the corporation. Capital distributions may take the form of cash or securities of other corporations. Preliminary to a capital distribution, stockholders vote to reduce the capital and authorize the directors to distribute the capital thus released to stockholders. Mining companies do not require specific authority of stockholders to make such distributions. Where complete **liquidation** is contemplated, appropriate action must be taken under the statute and charter. Capital distributions are not considered income subject to taxation.

RECLASSIFICATION OF STOCK.—Reclassification is a type of recapitalization involving a change in the capital stock structure of the corporation, through exchanging one or more classes of shares for classes of stock previously outstanding. Commonly it involves exchange of preferred for common or common for preferred.

A reclassification may be restricted to a portion of a corporation's capital stock. Thus, several outstanding preferred issues may be consolidated into one, or into one new preferred issue and additional common stock. Or a single preferred issue may, by exchange, be divided into two new preferred issues, one having priority over the other, or into a new preferred and additional common stock.

Stock reclassifications require amendment of the charter with the requisite consent of stockholders. The statutes may provide that major characteristics of a stock issue may be altered only with the consent of the holders of a specified majority of the stock. Thus, the Delaware law provides that capital stock may be reclassified and the "preferences, or relative, participating, optional, or other special rights of shares, or the qualifications, limitations or restrictions of such rights" may be changed by amendment of the certificate of incorporation upon the affirmative vote of a majority of the shares entitled to vote. But it further provides that "if any such proposed amendment would alter or change the preferences, special rights or powers given to any one or more classes of stock by the certificate of incorporation, so as to affect such class or classes of stock adversely, or would increase or decrease the amount of the authorized stock of such class or classes of stock, or would increase or decrease the par value thereof, then the holders of the stock of each class of stock so affected by the amendment shall be entitled to vote as a class upon such amendment, whether by the terms of the certificate of incorporation such class would be entitled to vote or not; and the affirmative vote of a majority in interest of each such class so affected by the amendment shall be necessary to the adoption thereof, in addition to the affirmative vote of a majority of every other class of stock entitled to vote thereon."

Some statutes accord appraisal rights to dissenting stockholders in reclassifications.

Reasons for Reclassifying Stock Capitalization.—Among common reasons for reclassifying stock capitalization are:

1. To bring the capital structure into line with earnings, as where preferred dividends are not earned year after year.
2. To create a better medium or media for financing or for making new acquisitions by exchange of stock.
3. To readjust the capital structure of a closely held corporation so as to facilitate public distribution of its securities.
4. To reduce voting stock outstanding.
5. To simplify the capital structure.
6. To conform to regulatory requirements, as in the case of public utilities.
7. To enable large stockholders to recover their investment by giving them nonvoting preferred which they can sell.

Reclassification of capital stock to facilitate new financing or to acquire properties or stock of other corporations by payment in shares is frequent. Of its own accord or upon the advice of issuing bankers, a company may decide that its capital structure is not adapted to its needs. A particular type of stock may be in vogue among investors, and reclassification of the existing capital structure may be needed to provide such stock. Even apart from the tastes of investors, a corporation may have to remold its capital structure from time to time to bring it into line with prevailing conditions.

Owners of a closely held corporation—members of a family or a small group of friends—may decide to seek public participation in ownership. They may be actuated in this decision by a desire to **diversify their own investments,** or they may wish to relinquish control and **retire from active management.** Whatever the reason, it may be found neces-

sary to rearrange the capital structure so as to give stockholders shares that can be sold more readily. For example, Howard Stores Corp. (previously a close corporation) reclassified 616,050 common shares into 32,500 shares of 5¼% cumulative preferred and 367,025 new common shares preliminary to public distribution of the stock in 1944.

Numerous corporations have combined several preferred stock issues into one through an exchange of shares. Thus, Rochester Gas & Electric in 1945 reclassified its 5% and 6% cumulative preferred stock into new 4% cumulative preferred stock. Under the New York statute, dissenting holders were entitled to appraisal rights. Holders of some 1,750 shares of old preferred stock objected and were awarded the call price and accrued dividends for their shares.

Reclassification of the capital structure may be equivalent to payment of an extra cash dividend, as is illustrated by the following case. A corporation had capital stock of $30,000,000, consisting of 300,000 common shares of a par value of $100, and a surplus of $20,000,000. It exchanged for these common shares $15,000,000 of redeemable preferred stock and 600,000 shares of new no-par common shares which were assigned a stated value of $25, or $15,000,000 for the total new common stock. A few years later the company redeemed the preferred stock at par, thus reducing its capital stock to $15,000,000 represented once again solely by common shares. Subsequently it declared a series of stock dividends in common shares aggregating $15,000,000. The original capital of $30,000,000 was thus restored, while stockholders had received $15,000,000 in cash through redemption of the preferred.

A stock reclassification may involve adjustments between the capital stock and surplus accounts. For example, the 1945 recapitalization plan of the Guantanamo Sugar Co. substituted 405,000 common shares of $1 par value for 405,000 common shares of no-par value. Since the stated value of the old no-par value common stock was $10 per share, the substitution caused the transfer of a large sum to capital surplus. The authorized number of common shares was increased at the same time from 405,000 to 709,256, to provide for the conversion privilege of a new $5 convertible preferred stock that was issued in connection with the adjustment of arrearages on the company's old $8 preferred stock.

Preferred Stock Recapitalizations and Readjustments

PRINCIPLES AND LEGAL RESTRICTIONS.—Like the common stockholder, the preferred stockholder is a part-owner of the business. Preferred and common shareholders alike have a position which contrasts with that of creditors. Recapitalizations of the nature described above may involve preferred as well as common stockholders. However, as the name indicates, preferred holders are given certain preferences over common holders, and in time these rights of preferred stockholders may conflict with a corporation's needs and welfare. Readjustment of the terms and rights of preferred stock is then desirable. This may usually be effected by amendment of the charter, although some courts have held that the right to accumulated back dividends on cumulative preferred stock is a vested right that each individual stockholder may insist upon, regardless of charter amendments.

Corporation laws of many states authorize changes in preferred stock provisions by a specified vote of stockholders. Typical statutory or charter provisions specify that a two-thirds vote of the preferred stock is necessary to change preference rights. Thus, section 37, subd. 3(c) of the New York Stock Corporation Law states: "If such certificate (of amendment) alters the preferences of outstanding shares of any class or authorizes shares having preferences which are in any respect superior to the preferences of the outstanding shares of any class having preferences . . . the certificate of amendment must be authorized by the votes of two-thirds of outstanding shares of the class of stock affected by the change." Some statutes also provide that a dissenting stockholder who does not consent to a change in his preferential rights is entitled to surrender his stock and to have its appraised value paid to him by the corporation. (Section 38, subd. 9 of the N. Y. Stock Corporation Law.) Such readjustments of preferred stock include (a) changes in the rate of dividend, (b) sinking fund provisions, and (c) voting rights.

PURPOSES OF PREFERRED STOCK READJUSTMENTS.—Although preferred stock does not burden a corporation with fixed interest charges or the problem of maturities, it may nevertheless prove troublesome to management and common stockholders. Among the more common purposes of effecting a preferred stock readjustment are the following:

Elimination of Burdensome Charter Provisions.—Corporations on occasion find themselves hampered in their financial transactions by reason of some restrictive charter provision relating to preferred stock. Such a provision may deprive the corporation of the power to issue funded debt or additional preferred stock without permission of a specified percentage of the preferred shares. Other typical provisions include working capital covenants and restrictions on common stock dividend payments. To give the management greater freedom in financing, consent of the preferred stockholders can be sought to modify such charter provisions. For this concession preferred stockholders may be compensated in some manner. Thus, preferred stockholders of the Hat Corp. of America in August, 1944, approved an amendment of the charter to eliminate future sinking fund payments thereon when the outstanding preferred stock would have been reduced to 20,000 shares.

Exchange for a Lower Dividend Issue.—If preferred stock is noncallable, an exchange for a lower dividend issue may be difficult unless it is effected by charter amendment. If the preferred shares are callable, unexchanged shares can be called for redemption. But one exchange in which dissenting stockholders were bound to exchange by statute, although the shares were callable, was the reclassification in 1945 of the $6 first preferred stock of the United States & Foreign Securities Corp. (a Maryland corporation) into $4.50 First Preferred Stock on a share-for-share basis. This reclassification was effected by amendment to the company's charter. The company's proxy letter stated that if the amendment received the assent of two-thirds of the first preferred stock and a majority of the common, each class voting separately, such action would be binding upon all stockholders, despite the fact that the $6 first preferred was redeemable at $105 per share. The advantages cited by the company to the stockholders in asking for approval of this reclassi-

fication were (a) the exchange would be tax free whereas, if his stock was redeemed at $105, the excess of the redemption price over stockholders' cost would constitute either taxable income or capital gain; (b) the exchange would avoid the reinvestment problem and permit retention of investment in the first preferred stock of the company; and (c) it would enable the company to escape the expense of refunding.

Exchange for Other Securities.—A corporation may desire to exchange preferred stock for other securities for simplification or income tax savings. In 1945, holders of the 6% cumulative preferred stock ($100 par) of the Atlantic Co. were offered $100 principal amount of 5% sinking fund debenture, due 1980, and one share of common stock for each share of 6% preferred stock held. This exchange offer was part of a voluntary plan of readjustment of the capital structure of the Atlantic Co. The offer was contingent on acceptance by 66⅔% of the aggregate par value of the 6% preferred stock and similar approval by other classes of securities in the capital structure. Any 6% preferred stock not exchanged was called for redemption. Advantage to the company arises from the fact that interest paid bondholders is deductible for income tax purposes.

Fund Arrearages on Cumulative Preferred Stock.—By far the most common type of preferred stock readjustment is the funding or compromise settlement of arrearages of unpaid dividends on cumulative preferred stock. Few corporations with heavy accruals of unpaid dividends on preferred stocks pay them off in cash, in accordance with the terms of the contract. Notable exceptions were in the case of the United States Steel Corp. which in one year, from November, 1936, to August, 1937, paid up back dividends of 18¼% on its 7% preferred stock in cash.

Heavy accumulations of unpaid preferred dividends adversely affect a corporation's credit, prevent new financing with either preferred or common stock, and bar dividends on common stock even though earnings are large. Sale of common stock in particular is not practicable when dividend payments are made remote by the existence of large arrearages on the preferred. Also, failure to pay preferred dividends may, under charter provisions, shift voting control to preferred stockholders, and common stockholders may be eager to regain control through a plan of readjustment to clear up arrearages.

The importance of capital readjustment plans designed to eliminate preferred dividend accumulations justifies separate discussion of such procedure in detail.

Funding Preferred Dividend Arrearages

REASONS FOR FUNDING.—As the claims of the preferred stockholder for back dividends constitute claims against the corporation's surplus in preference to those of the common stockholder, any compromise involving cancellation of these claims is, in fact, a compromise between conflicting interests of preferred and common stockholders. The compromise proposal generally comes from the management, which usually represents common stockholders. In making a proposal for adjustment of the arrearages on the preferred stock, the following reasons are commonly advanced for carrying out such a plan:

1. The wisdom of not impairing the working capital position of the corporation by large cash payments to clear arrearages on preferred stock. The adjustment plan will eliminate arrearages without the need for heavy cash distributions.
2. Improvement of the credit of the corporation.
3. Resumption of current dividend payments to the corporation's stockholders.
4. Improvement of the market position and salability of the corporation's securities.
5. Simplification of the corporation's capital structure, with the clearing up of preferred dividend accumulations as one phase of the operation.

A readjustment plan of this kind usually benefits common stockholders directly, since elimination of the preferred dividend arrearages brings the common stock closer to dividend payments. The problem is one of making sufficient concessions to the preferred to obtain their consent to releasing their claim to back dividends in cash.

THE LEGAL PROBLEM.—The courts have held that changes in dividend rates, sinking fund provisions, and voting rights of preferred stock are changes in preference rights that may be effected by amending the certificate of incorporation. However, claims of preferred stockholders to **accumulated** unpaid dividends or past due sinking fund payments have been held by some jurisdictions to constitute **contract** or **vested property** rights which cannot be eliminated by amending the certificate of incorporation. (Keller v. Wilson & Co., Inc., 21 Del. Ch. 391, 190 Atl. 115 Sup. Ct. 1936.) In such jurisdictions, dissenting preferred stockholders can insist on receiving back dividends in cash before any dividends are paid on a junior class of stock, provided the readjustment plan involves eliminating the accrued dividends through charter amendment. Other jurisdictions such as New York permit elimination of accrued preferred dividends by charter amendment where this is authorized by statute, with the right of appraisal given dissenting stockholders. [Meck, Accrued Dividends on Cumulative Preferred Stock (1941) 55 Harv. Law Rev. 71.]

A preferred stockholder who objects to a proposed readjustment plan designed to eliminate his back dividends can:

1. Vote against the proposed plan.
2. Attempt to have its execution enjoined in the courts if fraud is involved.
3. Insist on his contract rights, which involve receipt of back dividends in full before any dividend is paid on the common. The effectiveness of this action depends on the particular jurisdiction and the device employed to eliminate the accruals.
4. Ask for an appraisal of his preferred stock and payment of the appraisal price in cash, where the statute so provides.

Where the right of appraisal exists and dissenters are substantial in number, the cash requirements to pay them off may prove a stumbling block to the readjustment plan, because too much cash would be drained out of the corporation in this way. Hence, some corporations provide that a plan to readjust preferred dividend arrearages shall become effective only if a specified percentage, say 90%, of the preferred is deposited or voted in favor of the plan, although the directors may retain the right to declare it effective if a smaller percentage approves.

SOLUTIONS FOR THE LEGAL PROBLEM.—The problem of a dissenting minority has caused corporations to utilize devices to overcome this difficulty in effecting a funding of dividend arrearages on the preferred stock. The particular device employed will depend to a considerable extent on the law of the state of incorporation and other pertinent circumstances.

Incentive Offers.—Preferred stockholders who assent may be given added compensation such as (a) making the new preferred stock convertible into common, (b) placing a sinking fund on the new preferred stock, (c) the payment of a cash bonus, (d) issuing a new higher dividend-paying preferred stock, and (e) funding the old preferred stock with its arrears into bonds.

Prior Preferreds.—Assenters may be given prior preferred stock in exchange, which will place them ahead of nonassenting preferred stockholders in future dividend distributions. Since the right to future dividends is a preference, a prior preferred issue can be put out under most statutes by amendment of the charter. By placing dissenters in a junior position as regards payment of back dividends as well as future dividend distributions, this device acts as an indirect method of coercing dissenters. [Shanik v. White Sewing Machine Corp., 19A (2d) 831.]

Merger.—In recent years the merger device has been utilized frequently by corporations desiring to clear arrearages on an outstanding preferred stock issue. The corporation enters into a merger with a subsidiary and, as part of the merger plan, exchanges its preferred stock with unpaid back dividends for new preferred and common stock. The merger provisions of many corporation laws provide for appraisal and cash payment of dissenting stockholders. Examples of corporations employing the merger device to clear preferred dividend arrearages in recent years include Jones & Laughlin Steel Corp., York Ice Machinery Corp. (now York Corp.), and International Agricultural Corp. (now International Minerals & Chemical Corp.).

While the merger device provides a method of coercing dissenting preferred stockholders in readjustment plans, it has certain disadvantages. Stockholders may seek to enjoin the merger on the ground that it is not bona fide, but the courts have been disinclined to intervene in such cases. [Hottenstein v. York Ice Machinery Corp., 136 F (2d) 944.] A second disadvantage lies in the right of appraisal. Thus, in the Jones & Laughlin Steel Corp. merger involving (a) the absorption of two wholly owned subsidiaries and (b) the clearing of arrearages on the 7% preferred stock, it was necessary to provide for payment in cash of the fair value of the shares of dissenting stockholders in accordance with section 908 of the Pennsylvania Business Corporation Law.

Delaware Statute.—In 1927, section 26 of the Delaware corporation law was amended to give a corporation the right to amend its certificate of incorporation to reclassify its capital stock by changing "the relative, participating, optional, or other special rights of the shares." However, the Delaware courts later held that such a reclassification could not involve the elimination of back dividends on cumulative preferred stock. (Keller v. Wilson & Co., Inc., 190 Atl. 115; also Consolidated Film

Industries, Inc. v. Johnson, 197 Atl. 489; the effect of these decisions was to influence Delaware corporations to employ the merger device as a method of coercing dissenting preferred stockholders to accept plans to clear preferred dividend arrears.)

In 1925, section 5 of the Delaware corporation law was amended so that a corporation could provide in its certificate of incorporation that a compromise or arrangement between the corporation and its creditors and/or stockholders might be effected and made binding on all creditors and stockholders if (a) approved by the Court of Chancery and (b) by a vote of a majority in number and 75% in value of each class of creditors and/or stockholders. Section 5 of the Delaware corporation law would, therefore, appear to be a device that could be utilized to bind dissenters to a plan eliminating preferred dividend arrears. However, few Delaware corporations have utilized section 5, probably because such a proceeding subjects the corporation to the jurisdiction of the Chancery Court. (One corporation which utilized the provisions of section 5 of the Delaware law was the Robert Gair Co., Inc., which effected a compromise with its preferred stockholders in 1941—New York Stock Exchange Listing Statement A-11498, dated March 31, 1941.)

Public Utility Holding Company Act.—The Public Utility Holding Co. Act of 1935 grants the Securities and Exchange Commission powers under sections 11(e), 6(a), and 7(e) to force capital stock readjustments. When a plan of integration and simplification, which may involve clearing up preferred dividend arrearages, has been approved by the S.E.C., the latter may apply to a court of equity for an order enforcing the terms of the recapitalization plan upon all stockholders, who are enjoined from interfering with its execution. [United Light & Power Co., S.E.C. Holding Co. Act Release No. 4215; 51 F. Supp. 217 (D. Del.; 1943), affirmed in 323 U. S. 624 (1945).] In that case, the United States Supreme Court ruled that "where pre-existing contract provisions exist which produce results at variance with a legislative policy which was not foreseeable at the time the contract was made, they cannot be permitted to operate."

New York State Law.—New York State amended sections 36 and 37 of its Stock Corporation Law in 1943 so as to authorize a corporation, by a vote of holders of two-thirds of each class of stock, to amend its certificate of incorporation to provide for a reclassification of its shares to eliminate accrued cumulative preferred dividends. Any stockholder not agreeing to the plan of reclassification is given the opportunity to dissent therefrom and to be paid the appraised value of his stock in cash under the provisions of subdivision 9 of section 38 of the Stock Corporation Law.

In a test case under that law, the New York State Supreme Court (McNulty v. W. & J. Sloane Co., 184 Misc. 835) held that this provision was constitutional (reversed Roberts v. Roberts-Wicks Co., 184 N. Y. 257, which held preferred dividend arrearages to be contract or vested rights). The basis of the decision was the "reserved power" of the state to alter or repeal a corporate charter, which reserved power was held to extend not only to the contract between the corporation and the state but also to the contract between the corporation and the stockholders, or between the stockholders inter se.

METHODS OF FUNDING ARREARAGES.—In clearing up dividend arrearages on cumulative preferred stock, terms have varied widely. Broadly speaking, a corporation may employ one of two main approaches in the settlement of preferred dividend accumulations. The first approach is to leave the outstanding preferred stock undisturbed and simply provide for the settlement of the dividend arrearages. Thus, a corporation might ask preferred stockholders to agree to the cancellation of dividend accumulations in return for raising the dividend rate or adding a conversion or dividend participation feature to the preferred stock. Similarly, the corporation might propose to satisfy the arrears by means of (a) the issuance of dividend arrears certificates, (b) the issuance of additional preferred stock of the same class, (c) the issuance of a new senior or junior preferred stock (a conversion or participation feature might be included as a provision of the new preferred stock), (d) the issuance of bonds, or (e) the issuance of additional common stock.

This approach is unsuitable for a corporation which does not expect its operations to be more profitable in the future, for it will only be a matter of time before new arrearages accumulate. In fact, the issuance of bonds or additional preferred stock in settlement of arrears only increases prior claims to the corporation's earnings. In such cases, preferred dividend requirements should be reduced or perhaps eliminated entirely.

The second approach involves an exchange of other securities for preferred stock. Holders may be asked to exchange their preferred stock and the arrearages thereon for (a) a preferred stock with a lower dividend rate, (b) new preferred stock which is noncumulative, (c) common stock, (d) bonds with a low interest rate, or (e) a combination of the foregoing, such as a reduced amount of preferred stock and common. Very often, a cash payment or a conversion privilege is added to induce acceptance of the offer.

EXAMPLES OF PREFERRED DIVIDEND ADJUSTMENT PLANS.—The following five cases illustrate preferred dividend adjustments.

Use of Prior Preferred Stock.—In 1937, the Wheeling Steel Corp. effected a preferred stock readjustment plan whereby one share of 6% preferred stock ($100 par), with $24 of arrears, was exchanged for (a) one share of $5 cumulative convertible prior preferred stock (no par) and (b) ½ share of common stock (no par). Similarly, in 1945, Certain-Teed Products Corp. completed a preferred stock readjustment plan involving the exchange of one share of 6% prior preferred stock ($100 par), with accumulated dividends of $48.50 per share, for (a) one share of 4½% prior preference stock ($100 par), (b) five common shares, and (c) $4 in cash.

Use of Bonds.—In 1940, stockholders of Curtis Publishing Co. approved a recapitalization plan under which holders of each share of $7 cumulative preferred stock (no par) with arrears of $19.37½ per share received in exchange: (a) $10 principal amount of debenture 3% bonds due 1955, (b) one share of prior preferred stock with a fixed cumulative dividend of $3 per annum and an additional dividend of $1 per annum contingent on earnings, and (c) 2½ shares of common stock. It is inter-

esting to note that under this plan the number of outstanding $7 preferred shares was reduced from 736,373 shares to 60,594 shares during 1940. Dissenting shares were bought in by the company from time to time thereafter, but for some years dividends were paid only on the new prior preferred stock but not on the old preferred which remained outstanding.

Use of Dividend Arrears Certificates.—In 1937, the Illinois Power & Light Co. (now Illinois Power Co.) effected a capital stock readjustment plan whereby one share of 6% preferred stock ($100 par), with arrears of $24, was exchanged for (a) one share 5% cumulative convertible preferred stock ($50 par), (b) one share of new common stock (no-par and $25 stated value), and (c) dividend arrears certificate with a face value of $24. This dividend arrears certificate had no maturity and bore no interest, but had to be paid off out of earned surplus at its face value before payment of common dividends. The readjustment plan also provided for the reclassification of each two shares of old no-par common stock ($100 stated value) into one share of new no-par common stock ($25 stated value) and one warrant entitling the holder to purchase at any time on or before May 1, 1948 one share of new common stock at $30 per share.

Use of Conversion Feature.—In 1945 the Guantanamo Sugar Co. completed a readjustment plan which provided for the exchange of one share of $8 preferred stock ($100 par) with arrears of $120 per share for 2⅔ shares of $5 cumulative convertible preferred stock (no par). The convertible preferred could be converted at any time before July 1, 1950 into 8 shares of common stock. At the time of the voting on the plan the common stock was selling at a price high enough to make the conversion feature an effective sweetening device to induce acceptance of the plan by the $8 preferred shareholders.

Use of Common Stock Only.—In cases where the old preferred stock is exchanged for common stock only, the plan usually accords quite drastic treatment to the old common. Thus, Puget Sound Power & Light Co. in 1943 effected a reclassification whereby each share of $6 preferred stock with dividend arrears of $60.50 a share received 8 shares of new $10 par common stock. The old common stockholders received 1/20 of a share of new common stock for each old share held, so that the old common stockholders received only 3.03% of the new common stock.

Debt Readjustments

CIRCUMSTANCES NECESSITATING DEBT READJUSTMENT.—Debt adjustments illustrate even more than do capital stock modifications a conflict between law and economics. Corporations that borrow incur rigid legal obligations which changing economic conditions may make it impossible for them to fulfill. This is particularly true in industries that have passed their growth stage and those quite sensitive to the business cycle.

Situations often arise in which it is to the interest of the creditors and the debtor corporation to avoid legal proceedings, with accompany-

ing heavy expense, undesirable publicity and shrinkage in asset values, and to effect a voluntary readjustment of outstanding debt. Circumstances which usually call for debt readjustments are:

1. **Managerial ability**—If management has the capacity and qualifications to run the business successfully, a reorganization which may force it out of office becomes undesirable.
2. **Degree of financial embarrassment**—When financial embarrassment is temporary and future prospects are reasonably good, debt readjustments are logical.
3. **Nature of embarrassment**—If the difficulty is only inability to meet a heavy debt maturity, readjustment rather than reorganization is the indicated remedy.
4. **Debt ownership**—If holders of debt can readily be made to agree to a readjustment, a costly, drawn-out legal reorganization becomes unnecessary.

MAIN TYPES OF READJUSTMENTS.—The main types of readjustments are:

Extension of Maturities.—One of the most frequent occasions when corporations are forced to appeal to bond or noteholders for relief is at the maturity of such obligations. Present and prospective earnings may be quite sufficient to provide for fixed charges, and working capital may be adequate for ordinary needs. Nevertheless, cash resources may not suffice to pay off the principal of maturing obligations, and refinancing or refunding of such obligations may not be practical because of unsatisfactory securities market conditions. Similarly, the unfavorable position of the industry at the time may render the flotation of a new issue on reasonable terms impracticable or very burdensome.

For example, the uncertain outlook of the manufactured gas industry and the financial position of the company caused the Portland Gas & Coke Co. to extend the January 1, 1940 maturity of its $10,045,000 funded debt. After considerable effort, the company was successful in its attempt to extend the maturity to January 1, 1950, all but $246,000 principal amount of bonds agreeing to the extension. Dissenters were paid off in cash.

We are not concerned here with extensions of maturing obligations of corporations with a strong credit standing, with or without underwriting by investment bankers. Unassenting bondholders in such cases receive their principal promptly on maturity.

Reduction of Interest Rate.—Where fixed charges prove burdensome, a corporation may seek to reduce the interest rate on its debt. The declining earnings trend in the traction industry led the International Railway Co. (Buffalo, N. Y.) to propose in 1938 a reduction of the interest rate on its $18,208,000 refunding and improvement 5% bonds due 1962. Approximately 98% of the bondholders consented to a reduction in the fixed interest rate to 3% and the placing of the remaining 2% on a contingent basis, payment depending on earnings. Dissenters continued to receive interest at the full 5% rate, although this was not earned.

Reduction of Principal.—Although unable to pay off or refund its debt in full, a corporation may have sufficient cash to make a partial payment of principal. It may then propose to extend the maturity of only the remaining principal due after the partial payment.

Other Indenture Changes.—Corporations may find it desirable to get security holders' consent to other changes in a bond indenture or note agreement, such as postponement of interest or sinking fund payments or termination of a sinking fund requirement. Bondholders may be asked to accept interest-bearing scrip in lieu of cash for matured coupons. Not infrequently, a corporation may have urgent need of additional capital and may ask bondholders to release certain assets from their lien so that these can be pledged for new loans or sold. Bondholders may also be asked to subordinate their liens to new creditors.

INDUCEMENTS TO BONDHOLDERS.—A corporation will usually find it desirable to offer incentives to induce bondholders to agree to an extension of maturity or other concessions. The interest rate may be raised or the principal amount increased indirectly through a higher call price or maturity value. Additional security may be offered in the shape of increased collateral or an additional mortgage lien. A sinking fund may be provided where none had been stipulated before, the sale of senior securities may be barred, or payment of dividends on the common stock may be restricted during the extended life of the obligations. A stock bonus or cash premium has been offered in a number of cases. A convertible feature may be added to the securities to enhance the attractiveness of the readjustment offer.

LEGAL ASPECTS OF DEBT READJUSTMENTS.—Voluntary debt readjustments have been increasingly difficult to effect in the past ten years. The reasons are (a) growing realization by creditors that Chapter X of the Federal Bankruptcy Act accords them fuller protection than older reorganization procedures, and (b) the many cases in which dissenters have secured full payment when due.

Dissenters' Rights.—As regards interest and principal payments, the individual bondholder possesses a contract right under his bond. He cannot be coerced ordinarily to reduce or postpone interest or principal due him. In a few cases, however, bond indentures have provided that, by vote of a specified proportion of bondholders, interest or principal may be postponed for a period after the due date (Atlantic Co. 5% sinking fund debentures, due 1980). It is customary to provide for 30–60 days' grace period with respect to interest payments. Existence of a right to postpone principal payments has been held to impair negotiability of a bond issue.

As regards provisions other than those relating to payment of interest and principal, it is common practice to include in the indenture a provision that it may be amended by vote of bondholders, usually a 66⅔% or 75% vote. Sinking fund provisions, maintenance and replacement fund provisions, dividend restrictions, working capital covenants, and so on can often be modified or eliminated by amendment of the indenture. In the event of default of interest or principal, the typical indenture provides that if the trustee fails to act an individual bondholder can sue to collect his obligation. The chief problem in a debt readjustment proposal is thus to keep the number of dissenters within a number that the corporation is able to pay off in cash.

Mechanics of Debt Readjustment.—In soliciting consent of bondholders to a debt readjustment plan, the corporation usually resorts to

(a) exchange of certificates of deposit, (b) stamping of bonds as assented, or (c) deposit of bonds with a trust company without issuing certificates in exchange.

The use of certificates of deposit customarily involves the deposit by the bondholder of his bond with a named depositary under an agreement empowering the corporation to execute the plan, provided deposits are made by holders of a sufficient proportion of the securities. Upon deposit of his bond, the bondholder receives a transferable certificate of deposit evidencing his approval of the debt readjustment plan. In exchange for this certificate, he will receive new securities if the plan is declared operative. There are several disadvantages to the corporation in the use of certificates of deposit. These are: (a) the certificate of deposit may sell lower than nondeposited bonds, which discourages further deposits; (b) the procedure is relatively costly; and (c) certificates of deposit require registration with the S.E.C. under the Securities Act of 1933 unless the original security was exempt, as in the case of railroad securities. Stamping of bonds may be less costly, but it has the same disadvantage with respect to sales at lower prices in the market and registration. [Associated Gas & Electric Co., 99 F. (2d) 795, where stamping of bonds was held to in effect create a new security.] Deposit of securities with the right to withdraw at any time up to the effective date avoids the need for certificates of deposit or stamping, but involves risk of heavy withdrawals of deposited securities.

In effecting debt readjustment plans, registration of the new securities issued in exchange for the old is required under the Securities Act of 1933, unless it can be shown that commissions are not paid to secure assents. Similarly, any material change in the indenture will require its qualification by the Securities and Exchange Commission under the Trust Indenture Act of 1939. This qualification requirement applies even though the original bonds were issued prior to 1939.

HOW TO EFFECT DEBT READJUSTMENTS.—A corporation will frequently seek the advice and assistance of the investment bankers who marketed the bonds in carrying out a readjustment of debt. In general, the following points should be kept in mind in proceeding with a campaign to effect a debt readjustment:

Negotiation with Large Holders.—It is wise to discuss the proposed readjustment with large bondholders before announcing a plan publicly, so as to assure substantial support in advance. It is a great advantage to announce agreement by large institutional bondholders in formally presenting a plan for approval.

Presenting the Plan.—The management should draw up a letter to bondholders, signed by the senior officer of the company, to explain the financial problems confronting the corporation and the proposed solution. This letter should stress the advantages to bondholders in approving the debt readjustment plan.

Securing Assents.—It generally is wise to place the operation under the jurisdiction of one executive who will set up a staff consisting of employees of the company, or others specially retained, to solicit assents. A security dealer may be retained for a fee to aid in this task, and a commission may be allowed brokers for securing assents. A list of

bondholders is a prerequisite. The indenture trustee will help in compiling such a list, since the Trust Indenture Act requires him to maintain a list of names and addresses of known bondholders. Discontinuance by the Treasury Department of the requirement that ownership certificates be filed in the collection of bond coupons has made compilation of a complete list far more difficult.

Once active solicitation of assents starts, the officer in charge should attempt to secure favorable publicity and advertising for the plan. Frequent follow-up letters to bondholders will hasten deposits. It is common to emphasize the heavy expense and uncertainty of bankruptcy proceedings in the advertisements and letters.

Establishing Effective Date.—Usually the plan will not be declared operative by the corporation unless holders of the bulk of the issue have assented. The percentage required will depend usually upon the cash position of the corporation, since dissenters will have to be paid off in cash. It usually varies from 75% to 90%. Once a plan has been declared operative, the corporation will fix an early date for exchanging new securities for the old.

A Bank Loan.—Consummation of a debt readjustment plan has been assured in some cases through willingness of bankers to advance funds to pay off dissenters. A loan for their purpose is usually contingent upon (a) the corporation obtaining a prescribed percentage of assents and/or (b) the corporation's ability to put up satisfactory collateral to secure the funds advanced by the banks or bankers.

DEBT READJUSTMENTS UNDER THE PUBLIC UTILITY HOLDING COMPANY ACT.—Sections 11(c), 6(a), and 7(e) of the Public Utility Holding Company Act of 1935 authorize the Securities and Exchange Commission to force debt readjustment plans on dissenting bondholders. The contractual right of a bondholder to insist upon payment in cash may be modified under this law, and he may be compelled to accept securities of approximately equivalent value instead. [S.E.C.'s decision in the Standard Gas & Electric Co. case, Holding Co. Act Release No. 5430; affirmed 151 Fed. (2d) 326.]

SMALL BUSINESS READJUSTMENTS.—Where a business is small and the creditors few, financial difficulties may be solved through friendly debt adjustments. Types of voluntary debt readjustment will now be discussed.

COMPOSITIONS.—"Composition with creditors is an arrangement between a debtor and his creditors, the latter agreeing with the debtor, and mutually among themselves, to receive and the debtor to pay, a certain part or portion of the demands in full payment and discharge of the debt." (Anderman v. Meier, 91 Minn. 413.)

"A composition agreement is an agreement as well between the creditors themselves as between the creditors and their debtor. Each creditor agrees to receive the sum fixed by the agreement in full of his debt." (Reynolds v. Pennsylvania Oil Co., 150 Cal. 629.)

"In all compositions the creditors are moved by some advantage to be obtained in a distribution of property or money by the debtor, or by fixed payments to be made by him securing to each a certain proportion of his assets." (Henry v. Patterson, 57 Pa. 346.)

Such a settlement is usually brought about on the initiative of the debtor, who submits the terms of a proposed compromise. The proposal may be made to creditors individually, or at a creditors' meeting called for the express purpose of considering it. The latter method is more conducive to success, for when creditors are relatively numerous some may not be amicably disposed toward the debtor, but the other creditors may induce them to go along.

Number of Creditors Necessary to a Composition Settlement.—One creditor alone cannot make a composition. (Latapee v. Pecholier, 14 Fed. Case No. 8101.) Two or more creditors agreeing to a composition, it will be valid and binding on them and on the debtor where there is no requirement that the agreement to become effective must be entered into by a greater number of creditors. (Van Bokkelen v. Taylor, 62 N. Y. 105.) Where the composition agreement provides that it shall not become effective until a certain number of creditors, all, or a majority shall have agreed to *it*, the composition does not become operative until the required number agree. (Day v. Jones, 150 Mass. 231.)

The debtor may enter into a composition with only one class of creditors, such as his unsecured creditors. (Zoebisch v. Van Minden, 120 N. Y. 406.)

"An agreement for composition may be entered into by a part of the creditors of an insolvent debtor, and in such a case it will be binding only upon those who enter into it. In such a case, the creditors who do not enter into the agreement may proceed to collect or to settle their claims in their own way. If such a creditor makes a better settlement than those who agree to the composition, or obtains any other advantage, he will be permitted to retain it." (Atlas Engine Works v. Seymour First National Bank, 50 Ind. A. 549.)

Acceptance Considerations.—Offers in composition should never be considered by creditors when there is well-founded suspicion of fraud on the part of the debtors. Creditors are entitled to know the facts and figures about the debtor's business, and where the funds are coming from to pay the creditors agreeing to the compositions. Creditors should insist that the money, or satisfactory security for it, is actually put up before consenting and signing composition agreements.

When to Agree to Compositions.—Composition settlements under certain circumstances are the most effective and economical means of dealing with embarrassed debtors. Creditors must join at times with debtors in absorbing losses. Such arrangements have often enabled debtors to recover from financial adversity, with subsequent benefit to the creditors with whom they continue to transact business, as well as to themselves.

Creditors are interested in obtaining as large settlements as possible on their claims. Compositions are at times preferable for two reasons: (1) the amounts of settlement are definite, (2) the amounts realized are likely to be greater than can be expected from forced liquidations accompanied by heavy court and legal expenses. Thus, let us assume that the balance sheet of a business shows that the total assets amount to 75% of the liabilities. As a going concern, the assets may be worth that much, but if forced liquidation is resorted to the assets may, and very likely will, realize a great deal less than the book value. Hence, if

the business is forced into bankruptcy, with the expenses and losses incident to such a procedure, the creditors might receive liquidating dividends aggregating only about 25% of their claims. A composition settlement of 50% of the claims would obviously be better for all concerned. While the creditors would receive 50% of their claims instead of 25% the debtor could remain in business with some assets and without the stigma of bankruptcy.

ASSIGNMENTS.—Specific assignments for the benefit of creditors and general assignments (assignments in trust for the benefit of creditors) involve the transfer of assets of debtors to trustees, to be managed by them pending the settlement of creditors' claims. "An assignment is substantially a transfer, actual or constructive, with the clear intent at the time to part with all interest in the thing transferred and with a full knowledge of the rights so transferred." (Ormond v. Connecticut Mut. L. Ins. Co., 145 N. C. 140.)

Assignments of property in trust for the benefit of creditors have been approved by both state and federal courts. The only restriction is the general one providing for the setting aside of assignments on the ground of fraud.

Advantages of Assignments.—Assignments for the benefit of creditors provide a means whereby embarrassed debtors may adjust their affairs with creditors. They combine the advantages of amicable adjustments with some aspects of bankruptcy. The advantages are:

1. Expenses of administration are less than in bankruptcy proceedings.
2. Under assignments a time limit is not set for settling the affairs of debtors, and trustees may hold the assets until they can be sold under favorable conditions or returned to the debtor, whereas in bankruptcy they are often sold at forced sale.
3. There is less undesirable publicity attached to assignments than to bankruptcy proceedings.
4. The administration of debtors' estates under assignments is a private matter between trustees and creditors, whereas in bankruptcy it is a matter of public record.

Common Law and Statutory Assignments.—Assignments may be effected either under the common law or state statutes.

The common law assignment differs from the statutory assignment principally in the fact that it is not recorded and administration of the assets is conducted under the supervision of a committee of creditors rather than a court. It rests generally on the consent of the creditors, and serves as a legal basis for a friendly adjustment in accordance with the terms of the instrument of assignment. In a statutory assignment, the powers of the assignee as defined in the assignment instrument are subject to the provisions of the statute. At common law an insolvent debtor may make an assignment giving preference to certain creditors or classes of creditors, but only some statutes permit this.

All states have insolvency laws under which debtors may assign their property to trustees for the purpose of liquidation and distribution of proceeds among creditors. Statutory assignments have been largely displaced by bankruptcy proceedings, although common law assignments are still in use.

Assignment an Act of Bankruptcy.—Under the federal bankruptcy laws, an assignment for the benefit of creditors is an act of bankruptcy. As the federal law supersedes state laws as regards bankruptcies, dissatisfied creditors may have assignments set aside simply by filing petitions in bankruptcy.

While creditors have this privilege, it may be unwise to exercise it, particularly if they are satisfied as to the good faith of the debtor, and the honesty and ability of the assignee.

Rights of Creditors.—Where creditors have consented to assignments they are estopped from filing petitions in bankruptcy. For this reason creditors should not consent to assignments until they know the facts and have faith in the assignees. Creditors have a right to an accounting from assignees, and if this is not furnished pressure may be brought by proper application to the courts. The consent of all creditors to an assignment makes it proof against attack by bankruptcy petition.

Assignees.—Assignees may be named by debtors when making assignments. Where none is designated, the court will select them. Debtors have the right to select their own assignees, and are under no obligation to consult the wishes of creditors provided the persons selected are capable of performing the duties involved. Although selected by debtors, the assignees are supposed to act in the interest of the creditors. Assignees may or may not be creditors of the assignors.

Duties of Assignees.—When assignees receive assignments from debtors, they are formally recognized as assignees. Their duties are:

1. To give public notice of assignment and their appointment as assignees.
2. To execute bonds for the faithful performance of trust.
3. To take possession of the property listed in the schedules accompanying the assignments.
4. To collect the debts due the assignors.
5. To sell the property transferred under the assignments.
6. Out of the proceeds of sale and debts collected, to pay the expenses of realization and distribute to creditors dividends on their claims. Dividends are usually paid from time to time as funds accumulate in the hands of assignees.
7. To turn over to the assignors funds left in the hands of assignees after paying the claims of the creditors in full.
8. To file an accounting which generally closes the estate.

Assignees hold a fiduciary relation to their assignors and to the creditors. Good faith is essential. They may be held personally liable for misconduct or breach of trust. They are expected to make an accounting of their transactions and may be removed from office for violation of trust. They are liable for property or money lost by negligence.

CREDITORS' COMMITTEES.—Operation of businesses by creditors' committees resembles an assignment in that the management of an embarrassed enterprise is taken over by creditors. The chief requirements usually are:

1. That existing creditors subordinate and extend their claims.
2. That banks or creditors advance sufficient new money to operate the businesses, the new advances to be entitled to a priority in repayment.

3. That the management of the businesses pass into the hands of committees chosen by the creditors.
4. That the businesses be returned to the proprietors when the debts are paid in full.

The foregoing requisites may be incorporated into a single contract between the business in financial difficulties, the creditors who subordinate their claims and extend aid, and bankers who may advance new money. The same result may be accomplished by a series of agreements as each situation is met, one being made conditional upon the others.

Creditors, in appointing committees, generally give the larger creditors representation and attempt to select the men best qualified to manage the debtors' affairs. The size of a committee is governed by several factors, such as the magnitude of the concern, the number of creditors, and the variety of interests involved. For efficiency, committees should be as small as conditions permit. Committees of three can handle business problems more easily than larger ones, but sometimes it is necessary to have larger committees to obtain the support and cooperation of all creditor groups. Where this is necessary, it is desirable to appoint a small but active executive committee with considerable authority. In practice, banks which subscribe additional money are the most influential members.

How Committees Operate.—Generally the committees formulate and supervise policies to be followed in handling the debtors' affairs. Actual management is often delegated to a member best qualified. Frequently the creditors employ a qualified executive to act as their representative and pass on all matters relating to the routine management of the business. He may be appointed treasurer or controller. This appointee should be able, within a short time, to advise creditors whether the business can recover or should be liquidated. If the business cannot be continued as constituted, reorganization may be necessary. If reorganization also is not feasible and it becomes necessary to liquidate, the creditors' committees may supervise the liquidation.

Creditor Voting Trustees.—In a corporation, a voting trust may be set up under the creditors' agreement, and broad powers given the voting trustees, including the power to elect new directors and officers and to liquidate the business if they see fit. The trustees may have to elect "dummy" directors, as men of standing are not disposed to appear as directors of a failing business. While entirely new officers may be installed, it is better to avoid this for the sake of outward appearances if an attempt is to be made to save the business. The old president may be allowed to continue, but he may be deprived of his former powers, and the active administration of the business taken over by a general manager selected by the voting trustees designated by creditors. A clerk in the office of the counsel of the creditors' committee may serve as secretary for the corporation, and the treasurer may be an employee of the firm of accountants engaged to make an audit of the company's affairs and keep the accounts for the trustees.

Advantages of Creditors' Committees.—Creditors' committees provide:

1. **Greater freedom of action.** Creditors' committees have greater freedom of action and adaptability to changing business conditions, with-

out the hampering influence of statutes or legal precedents and the necessity for obtaining judicial approval for every important business move.

2. **Efficiency and economy.** Expenses and costs of creditors' committees are less than in bankruptcy organizations. The members of creditors' committees, by reason of their position to safeguard their interests, give much time to working out solutions of the debtors' problems and sometimes act without compensation.

In many cases, members of creditors' committees and their counsel are substantially compensated for their services. But usually this follows successful administration.

3. **Expeditiousness.** Administration of a business under a court's jurisdiction is often a long-drawn-out affair, whereas creditors' committees are chiefly interested in settling the claims of the creditors quickly and being relieved from their work as soon as possible.

4. **Absence of unfavorable publicity.** Unfavorable financial publicity has a detrimental influence on any business. Under creditors' committees concerns are not subject to the widespread publicity incident to court proceedings. The only publicity under creditors' committees is that of credit reporting agencies and credit departments of banks and creditors.

5. **Retention of organization.** Under creditors' committees the personnel of business organizations are generally kept intact, with the exception of unnecessary and inefficient employees and possibly the treasurer or controller, who may be temporarily superseded by the representatives of the creditors' committees.

Disadvantages of Creditors' Committees.—Creditors' committees do not possess certain powers of bankruptcy trustees. Disadvantages are:

1. **Inability to set aside unprofitable contracts.** Trustees in a bankruptcy reorganization may move to set aside contracts which are burdensome or unprofitable. Committees of creditors could do away with such contracts only by consent of the parties to the burdensome contracts.

2. **Inability to set aside questionable claims.** Courts may exclude questionable claims of creditors. Committees of creditors may find it far more difficult to resist questionable claims.

3. **Inability to stop creditors' actions.** The greatest benefit in reorganization under the Bankruptcy Act is the court's power to enjoin actions by creditors. Creditors' committees do not possess such powers. They are limited to persuasion and negotiation, and if they fail their only solution is to pay off insistent creditors.

CREDIT ADJUSTMENT BUREAUS.—Creditor committee management, as an alternative for proceedings under the Federal Bankruptcy Act, has been strongly supported by the National Association of Credit Men, which has implemented the procedure. Settlement of the affairs of a corporation in an embarrassed financial condition can be handled by a creditors' committee working through its own liquidating agent, or an adjustment bureau on the approved list of the National Assn. of Credit Men. Throughout the country, member associations of the National Assn. of Credit Men have created and fostered approved adjustment bureaus. These bureaus specialize in liquidating insolvent businesses and rehabilitating embarrassed debtors without resort to the Bankruptcy Act.

Intercorporate Readjustments

CHANGES IN CORPORATE STRUCTURE OF A HOLDING COMPANY SYSTEM.—Intercorporate readjustments involve changes in the corporate structure of a holding company system. Corporate structures of expanding enterprises may assume a complicated form. The process of expansion often results in the acquisition of control of a number of other corporations. Subsequently, simplification of intercorporate structure may be desirable for greater economy and efficiency of operation, to facilitate financing, for tax reasons or because of regulatory requirements. Since 1930, the trend among large industrial, railroad, and public utility enterprises has been to reduce the number of corporate entities constituting a holding company system. In some cases, however, tax considerations have encouraged the formation of new subsidiaries.

REASONS FOR INTERCORPORATE CHANGES.—There are several reasons why it may become necessary to make intercorporate changes:

1. **To reduce taxes.** Reduction in the number of corporate entities composing a holding company system will result in a saving in both corporate franchise taxes and income taxes. A holding company must pay a tax on dividends received from a subsidiary equal to 15% of the corporate income and surtax rate. If the corporate normal and surtax is 38% the effective intercorporate dividend tax rate is thus 5.7% (or 15% × 38%). Furthermore, present tax laws place a penalty of 2% on the filing of consolidated returns by two or more corporations, and a parent must own 95% or more of the subsidiaries' voting stock (and 95% of each class of nonvoting stock other than preferred stock of at least one subsidiary) to be qualified to file a consolidated income tax return.

The tax factor has also been of considerable influence in stimulating intercorporate readjustments involving leases. The federal government taxes lessor corporations as the recipient of income. In many cases the courts have decided that the provisions of the lease agreement make the lessee liable for the lessor's taxes. The additional tax burden imposed on lessee railroads under such decisions caused several of them to merge with leased lines. (See Delaware, Lackawanna & Western R. R. mergers with a number of leased lines.)

2. **To facilitate financing.** Simplification of corporate structure may permit a stronger mortgage to be created and more stable earning power achieved (Consolidated Edison Co. of N. Y. 1946 refinancing).

3. **Management reasons.** The underlying motive for intercorporate simplification may be a desire by management to reduce overhead expense and to reorganize production and distribution facilities. This has been a most important reason for the simplification of the Standard Oil parent groups during the past decade.

4. **Legal compulsion.** The Public Utility Holding Company Act of 1935, chief example of this factor, requires the simplification and dissolution of intercorporate structures of registered public utility holding company systems to meet two tests, namely, (a) the corporate simplification test and (b) the integration test. Section 11(b)(2) of this law provides that a holding company may not have a subsidiary whose subsidiary is in turn a holding company (simplification). Similarly, section 11(b)(1)

provides that the operating subsidiaries of a holding company must be limited to an integrated area in one or adjoining states.

INTERCORPORATE READJUSTMENT METHODS.—Such readjustments can be effected by the following procedures:

1. **Formation or liquidation of subsidiaries.** Intercorporate readjustment may involve forming new or dissolving existing subsidiaries. Thus, the International Tel. & Tel. Corp. during the period of rapid growth in the 1920's acquired many new subsidiaries, but later liquidated or sold a number of them to simplify its intercorporate structure.

2. **Merger of subsidiaries.** Numerous large enterprises have reduced the number of their subsidiaries by merging them into other subsidiary corporations, or by absorbing some of the subsidiaries into the parent company (Texas Co.).

3. **Merger with lessor corporations.** Railroad and traction companies have simplified their intercorporate structures by mergers with corporations whose properties they have previously operated under leases (Public Service Corp. of New Jersey system).

4. **Liquidation of holding company.** The holding company may be liquidated entirely for financial reasons or because of legal compulsion. In either event, securities of operating subsidiaries are distributed in exchange for those of the holding company (United Light & Power Co. system).

5. **Exchange of securities.** Some utility holding companies, to meet the integration requirement, turned over their interest in certain subsidiaries to other holding companies having adjoining properties in exchange for stocks of operating utilities they desired or cash (United Gas Improvement Co. disposition of Erie County Electric Co.).

SIMPLIFICATION AND INTEGRATION UNDER THE PUBLIC UTILITY HOLDING COMPANY ACT.—Simplification and integration under the Public Utility Holding Company Act of 1935 created a number of problems in intercorporate adjustments. The chief of these were:

1. **The need of paying off senior securities** of the top and intermediate holding companies, either in cash or through an exchange for portfolio securities.

2. **Disposal of small, isolated properties.** This could be done by competitive or private sale, or through an exchange of properties with other holding companies. (See Associated Electric Co.)

3. **Elimination of intermediate holding companies.** This often involved claims and counter-claims for mismanagement, etc., requiring settlements or extended litigation. (North American Co., North American Light & Power Co., and Illinois Power Co. litigation was an example.) Until such problems could be ironed out, simplification and integration was necessarily delayed.

Special tax treatment has been accorded distributions of stock in one or more subsidiaries formed to take over assets by a corporation, under the Revenue Act of 1951. Such distributions are designated as tax-free exchanges, so that no tax need be paid on their receipt by stockholders. A distribution of stock of a newly formed subsidiary is termed a **spin-off**

when it is distributed without affecting the outstanding stock of the distributing company; it is a **split-off** when the new shares are exchanged for part of the stock of the parent; and it is a **split-up** when shares in subsidiaries are exchanged for all the stock of the parent, which is then in effect dissolved. Corporations that have developed products or activities not directly related to their main business may find such tax-free distributions desirable for their shareholders.

4. **Relative participation of bondholders, preferred stockholders, and common stockholders** in the assets of a holding company, where these do not suffice to cover prior securities. The S.E.C. has given junior stock a participation of about 5% in such cases where it has no present book value, in recognition of the fact that a going concern is being liquidated because of statutory compulsion. (Otis & Co. v. S.E.C., 323 U. S. 624.)

SIMPLIFICATION AND INTEGRATION METHODS.—Among the measures taken to effect simplification and integration of holding company systems are:

1. **Sales of operating subsidiary securities to the public,** proceeds being used to pay off prior securities of holding company. (See sale of Empire District Electric Co. common stock by Cities Service Power & Light Co.)
2. **Use of current earnings to retire prior securities,** after which the balance of the portfolio is distributed to common stockholders. (The North American Co. utilized this method, paying dividends on its common stock in shares of some of its subsidiaries, while cash earnings went to retire bonds of the parent company.)
3. **Direct exchanges of portfolio securities** for prior securities of the holding company. (The United Corp. used this method with particular success.)
4. **Sale through the issuance of rights** to holding company stockholders entitling them to subscribe to portfolio securities, the proceeds going to retire prior securities. (Sale of Pennsylvania Power & Light Co. common stock by National Power & Light Co. to its own stockholders.)
5. **Reclassification of the holding company capital structure** into a single class of common stock, followed by distribution of stock of subsidiaries in an agreed-upon reclassification ratio. (United Light & Power plan.)

Voluntary Liquidations

LIQUIDATION DEFINED.—Liquidation involves conversion of assets into cash to discharge liabilities, distribution of the balance of assets among the stockholders, and legal steps to effect dissolution of the corporation. The distribution of assets must be in accordance with the respective rights and preferences of the several classes of creditors and stockholders. Ordinarily, assets are turned into cash preliminary to making the distributions, but a corporation owning stocks or bonds of other companies may distribute these among its stockholders pro rata.

WASTING ASSET INDUSTRIES.—Liquidation may follow from a number of causes. Concerns engaged in wasting asset industries such as mining, oil extraction, lumbering, stone-quarrying will in time be forced to liquidate unless new reserves of the wasting assets are acquired or they shift to some other business. The shrinkage in the business is reflected in the allowance for depletion, and the distribution of depletion reserves as distributions to stockholders is tantamount to gradual liquidation of the enterprise.

The amount credited to depletion is usually based on the original cost of the property (less any residual value it may have), estimated recoverable reserves and the rate at which the reserves of ore, lumber, or other assets are being used up. For example, a coal mine purchased for $1,000,000 is estimated to have a value as land after the exhaustion of the coal deposits of $10,000. The net cost of the coal deposit is thus $990,000. If estimates place the amount of recoverable coal at 4,000,000 tons, then for each ton mined $.2475 should be credited to the depletion reserve out of the sales price of each ton extracted. The purchase price of the mine is thus gradually recovered in cash as the mined coal is marketed. Unless this accumulating cash is used to purchase new mining properties or other assets, the only alternative is to declare capital distributions or liquidating dividends from time to time, thereby gradually returning to the stockholders their original investment.

Reinvestment in other assets may not be wise, where a management is specialized. If a company has decided not to extend its operations beyond the exhaustion of its present reserves, a wiser course may be to declare dividends in partial liquidation from time to time. Such distributions are not taxable as ordinary income to the stockholders. Simultaneously, ordinary taxable dividends may be paid out of current profits. Stockholders should be informed of the amount that is a capital distribution, and so not subject to tax as ordinary income.

LIQUIDATION TO AVOID INSOLVENCY.—A concern may be solvent, but its operations may be showing persistent losses, working capital may be depleted, and the prospects for improvement uncertain. To avoid further impairment of assets through operating losses, the directors may decide to liquidate and return to stockholders whatever of their investment remains. (See Brewster Aeronautical Corp. liquidation subsequent to World War II.) Even a prosperous concern may vote to liquidate if it foresees a decided change for the worse in general conditions or in its own fortunes, or if the management wishes to retire and does not want to turn over direction of the affairs of the business to others.

PROCEDURE IN VOLUNTARY LIQUIDATION.—Statutes provide for the manner of voluntary liquidation. The following procedure is typical:

1. **A vote by the required proportion of stockholders,** either of those having voting power only, or of all classes regardless of whether they have voting power. The proportion may be a bare majority, two-thirds, or higher. The charter may prescribe some other proportion which, however, may not be less than the minimum set by statute.

2. **Appointment of liquidating trustees or agents.** Under the statutes, the directors may be constituted liquidating trustees, or trustees may be

appointed by the stockholders from their own number. As the company has voted to dissolve, title to the assets is no longer in the corporation but passes to the liquidating trustees, who hold them in trust for the benefit, first, of creditors and other claimants, and after them for the benefit of the stockholders. Assets may be followed, in the interest of creditors, into the hands of stockholders after final distribution. [Updike v. United States, 8 F. (2d) 1912.] The liquidating trustees may engage one or more liquidating agents to act under their supervision. On the application of a creditor or stockholder, a court of competent jurisdiction may appoint a receiver to take charge of the assets for liquidation under the court's supervision.

3. The **assets are sold** by the liquidating trustees, the liquidating agent or the receiver. Under the California statute, the assets may be sold, in part or in whole, to another corporation for a consideration that may include stock and/or other securities of that corporation, if the consent of shareholders entitled to receive more than half of the value of such assets is secured.

4. **Extinguishment of all claims and liabilities** from proceeds of liquidation.

5. **Declaration of a liquidation dividend** or dividends by liquidating trustees, agents, or receiver. Such declaration may not be permitted until after a certain period has elapsed from the date of the corporation's dissolution, to assure that claims have been asserted and paid. If some stockholders have not paid the subscription price in full, they are entitled to share the dividends only in proportion to the amount of their payments.

6. **Surrender for cancellation of stock certificates** by shareholders on the receipt of the final liquidating dividend. Liquidation is generally a protracted process due to the nonliquid character of certain assets and the time required to settle claims and liabilities. Dividends in partial liquidation may be paid in the meantime as the required cash is accumulated. In some cases, the amount of each liquidation is stamped or endorsed on the stock certificate. This is done while the stock transfer books remain open and shares change hands, to inform buyers that part of the capital has been returned.

LIQUIDATING AGENCY.—Where liquidation is protracted, assets may be turned over to a new liquidating corporation or trust to hold them pending their sale. The original corporation can then be dissolved forthwith.

Corporate Dissolution

MEANING OF DISSOLUTION.—As stated by Fletcher (Law of Private Corporations), a corporation is dissolved when the **franchise to be a corporation,** conferred upon it by the state in which it is incorporated, is extinguished and the corporate existence is terminated. Dissolution involves observance of certain legal formalities. Without these a corporation may continue to exist, even as an empty shell, after it has ceased doing business and no meetings of stockholders or directors are being held. However, discontinuance of business, as well as insolvency, while not technically dissolution, practically confers upon credi-

tors the rights which they have under technical dissolution—to recover unpaid stock subscriptions from stockholders if the assets are insufficient to meet the liabilities.

METHODS OF DISSOLUTION.—A corporation may be dissolved in one of the following ways:

1. By act of the legislature.
2. By expiration of the period fixed in the charter for the life of the corporation.
3. By the happening of some contingency prescribed in the charter.
4. By failure or by loss of some essential part of the corporation.
5. By forfeiture of the charter by judicial proceedings.
6. By voluntary surrender of the charter, as previously discussed.

LEGISLATIVE REVOCATION OF CHARTER.—The legislature may revoke the charter of a corporation only if it has reserved that right by constitutional or statutory provision, as is generally the case, or by a clause in a charter granted by special act. Such a provision then becomes a part of the contract between the state and the corporation. Without such provision repeal of the charter without the corporation's consent would be in violation of the obligation of a contract, which is prohibited by the Constitution of the United States. However, absence of such provision does not prevent the legislature from repealing a charter if the corporation has violated its contract with the state by some act of omission or commission.

DISSOLUTION BY EXPIRATION OF CHARTER.—Statutes generally require that the charter state the period of corporate existence, and when that period has elapsed the life of the corporation automatically ceases. However, a corporation whose term of life is about to elapse may in most states **extend its existence** by complying with certain statutory provisions. A charter may limit the exercise of a certain power for a specified number of years without otherwise limiting the length of corporate life. In some states, **corporate life can be shortened by amendment of the charter,** and advantage is taken of this provision to dissolve the corporation.

DISSOLUTION EFFECTED BY HAPPENING OF SOME CONTINGENCY.—Statutes may prescribe certain acts or omissions to act on the part of the corporation that automatically effect dissolution without any court proceedings instituted by the state. For example, failure to commence business within a certain time after incorporation may end the corporate existence. The Illinois statute provides that unless a corporation commences the transaction of business within one year from the date of the approval of its certificate of incorporation, such certificate shall be deemed revoked and all proceedings under it void. Such conditions, however, must be so plain that the intention of the legislature is unmistakable, according to Fletcher, as courts are ordinarily inclined to be liberal in this respect and view failure to fulfil a condition imposed by statute or charter as merely a cause for the forfeiture of the charter in an action brought by the state specifically for that purpose, and not as working forfeiture automatically.

There is no **legal dissolution,** without specific statutory provision to that effect, even if the corporation has not only ceased exercising its

powers but has disposed of all of its property and distributed the proceeds to the stockholders, until the charter has been surrendered and its surrender has been accepted by the state. Likewise, insolvency, assignment for benefit of creditors, bankruptcy proceedings, failure to pay taxes, etc., are causes of dissolution but do not work automatic dissolution unless so provided by statute. On the other hand, in consolidations and mergers, the consolidating or merged companies are dissolved by the act of consolidation or merger.

DISSOLUTION FROM MISUSE AND NONUSE OF POWERS.—Where a corporation has either misused or failed to use its franchises and powers, court action may be brought against it to bring about the forfeiture of its charter by the state, represented by the attorney general or otherwise. Minority stockholders or creditors are permitted to institute such proceedings only by express statutory provisions. Courts generally, however, show reluctance to deprive corporations of their charters except in flagrant cases, in which the ultra vires acts involve essential provisions of the law or charter and are matters of interest to the public.

VOLUNTARY DISSOLUTION.—Such dissolution, in the absence of a statute making special provision for it, can only be brought about by the unanimous consent of all the stockholders. A majority of the stockholders can under those conditions effect dissolution only if the corporation is unable to fulfil the purposes of its incorporation and it is not a quasi-public corporation (railroad or public utility). In most states, however, statutes have been enacted which permit the dissolution of corporations by a vote of a specified majority of the stock outstanding. If there are two or more classes of stock, the permission of each class may be required. Special statutes authorize the dissolution of such corporations as **banks, trust companies, insurance companies, and savings and loan associations.** In some states, all claims against the corporation must be settled before a corporation can dissolve itself.

The corporate existence may be continued for a stated period after formal dissolution but only to wind the company up. Thus, in Delaware all corporations, whether they expire by limitation or are otherwise dissolved, continue as bodies corporate for three years thereafter for the purpose of prosecuting or defending suits and of enabling them to liquidate their affairs—to dispose of and convey their property and to divide their capital, but not to continue the business for which they were established.

SECTION 22

REORGANIZATIONS AND BANKRUPTCY

CONTENTS

PAGE

Reorganization defined 929
Insolvency defined 930

Reorganizations Under Chapter X

History 930
The Bankruptcy Act of 1938 931
Steps in reorganization under Chapter X 931
Filing of the petition 931
Appointment of trustees 933
Formulation of a plan of reorganization 934
Hearing on the reorganization plan 935
Advisory report by the S.E.C. 935
Approval of plan by the court.... 935
Submission of plan to security holders 935
Confirmation of the plan by the court, and its consummation 936
Compensation and allowances 937
Representation of security holders.. 937

Arrangements Under Chapter XI

Definition 938
Filing of petition..... 939
Proceedings 939
Confirmation 939

Railroad Reorganization

Special factors 940

The Reorganization Plan

Legal limitations 941
Valuation of property 941
Preparation for reorganization 942
Objectives of the plan 942
Reduction of fixed charges 942
Elimination of burdensome maturities 943
Provision of adequate working capital 944
Facilitating future financing 945
Assure sound financial policy after reorganization 945
Presentation of a reorganization plan 946
Analysis of a reorganization plan in table form (*f.* 1) 947
Treatment of individual securities, shown in table form (*f.* 2) 948

PAGE

Protective Committees in Reorganization

Formation of committees 946
Deposit or protective agreement 949
Powers of committee 949
Notice to security holders 950
Pledge of deposited securities 951
Certificates of deposit of opposing committees 951
Expenses of the committee 951
Protective committees under Chapter X 951

Bankruptcy

Bankruptcy laws of the United States 952
Purpose of bankruptcy 952
Federal Bankruptcy Law and state insolvency and other laws 953
Courts of bankruptcy 953
Commencement of bankruptcy proceedings 954
Voluntary bankruptcy 954
Filing of schedules 955
Power of corporate directors to petition bankruptcy 955
Involuntary bankruptcy 955
Acts of bankruptcy 956
Adjudication of bankrupt 958
Provisional remedies for safeguard of debtor's property 959
Receiver in bankruptcy 960
Powers of receiver 960
Referee in bankruptcy 960
Jurisdiction of referees 961
Special duties of the referee 961
Compensation of referee 962
First meeting of creditors 962
Subsequent creditors' meetings 963
Voting at creditors' meetings 963
Creditors' committees 963
Proving of claims 963
What debts may be proved 964
Allowed claims 965
Duties of bankrupt 966
Examination of the bankrupt 966
Concealment of property and records 967
Trustee in bankruptcy 967
Trustee's accounts 968
Compensation of trustee 968
Trustee's title to property 968

	PAGE
Transfer of powers and documents to trustee	969
Bankrupt's exemptions	969
Voidable preferences	970
Fraudulent transfers	970
Continuance of business	970
Burdensome property	971
Partnerships in bankruptcy	971
Summary jurisdiction of the bankruptcy court	972
Adverse claimants	972
Jurisdiction of state and other courts over bankrupt's property	973
Sale of property	974
Payment of debts with priorities	974
Declaration and payment of dividends to creditors	975
Closing of the bankrupt estate	976
Reopening of bankrupt estate	976
Discharge of bankrupt	976
When discharge not allowed	976
Debts not affected by discharge	977
Revocation of discharge	977
Wage earners' plans	977
Agricultural compositions and extensions	978

SECTION 22

REORGANIZATIONS AND BANKRUPTCY

REORGANIZATION DEFINED.—The term "reorganization" is sometimes used in business parlance to describe a voluntary readjustment of corporate debt and capital stock, as well as one effected by order of the court. But it is being limited more and more to plans that change the terms of corporate indebtedness, and incidentally of capital stock, which are effected under the Bankruptcy Act.

Reorganization is defined specially in the Internal Revenue Code. Such transactions as the conversion of a partnership into a corporation may come under the statutory definition of a reorganization under the Code, and thus constitute a tax-free exchange. Conversely, some reorganizations effected under the Bankruptcy Act have not conformed to the statutory definition, and so are not "reorganizations" as this term is defined in the Internal Revenue Code.

Section 112(g) of the Internal Revenue Code defines reorganization for tax purposes as follows:

(1) The term "reorganization" means (A) a statutory merger or consolidation, or (B) the acquisition by one corporation, in exchange solely for all or a part of its voting stock, of at least 80 per centum of the voting stock and at least 80 per centum of the total number of shares of all other classes of stock of another corporation, or (C) the acquisition by one corporation, in exchange solely for all or a part of its voting stock, of substantially all the properties of another corporation, but in determining whether the exchange is solely for voting stock the assumption by the acquiring corporation of a liability of the other, or the fact that property acquired is subject to a liability, shall be disregarded, or (D) a transfer by a corporation of all or a part of its assets to another corporation if immediately after the transfer the transferor or its shareholders or both are in control of the corporation to which the assets are transferred, or (E) a recapitalization, or (F) a mere change in identity, form, or place of organization, however effected.

The National Bankruptcy Act as amended in 1938 authorized a new procedure, **arrangements,** to simplify statutory reorganization for smaller corporations. By accelerating reorganizations of smaller enterprises Congress sought to clear federal court calendars of such cases more quickly and to reduce the expense and time consumed.

Equity reorganizations have become virtually a thing of the past as the result of the enactment of the reorganization sections of the National Bankruptcy Act in 1933 and subsequent years. Since equity remedies become unavailable when statutes are enacted covering the same subjects, equity proceedings for reorganization are now initiated only in the very rare instances where a corporation cannot reorganize under the Bankruptcy Act because it does not meet the statutory re-

quirements. Equity receivers are still appointed on occasion where a conflict among stockholders over the election of the board of directors or charges of fraud may cause a court to appoint its representative to take over a business enterprise pending the conclusion of litigation. Also, the thousands of precedents handed down by the courts in past equity reorganizations are still of the utmost importance in bankruptcy proceedings, for Chapter X of the Bankruptcy Act specifies in section 115:

> The Court shall have and may exercise all the powers, not inconsistent with the provisions of this chapter, which a court of the United States would have if it had appointed a receiver in equity of the property of the debtor on the ground of insolvency or inability to meet its debts as they mature.

INSOLVENCY DEFINED.—Insolvency has been defined differently in the Bankruptcy Act and by courts of equity. A debtor may be said to be insolvent either in the bankruptcy or in the equity sense, depending upon which of these two definitions is used. Section 1 of the Bankruptcy Act gives the following definition:

> A person shall be deemed insolvent within the provision of this Act whenever the aggregate of his property, exclusive of any property which he may have conveyed, transferred, concealed, removed, or permitted to be concealed or removed, with intent to defraud, hinder, or delay his creditors, shall not at a fair valuation be sufficient in amount to pay his debts.

Equity courts, on the other hand, have defined insolvency as inability to meet debts as they mature. Therefore, a corporation whose assets largely exceed its liabilities may nevertheless be found insolvent in an equity sense because it cannot meet currently maturing debts. The reorganization provisions of the Bankruptcy Act may be used by corporations that are insolvent in either sense.

Reorganizations Under Chapter X

HISTORY.—The Constitution of the United States provides that "Congress shall have power to establish . . . uniform laws on the subject of bankruptcies throughout the United States."

This clause is the basis for federal regulation of bankruptcy and reorganization. Until 1898, however, Congress had not enacted a permanent bankruptcy statute, so that state laws applied in each jurisdiction. With the enactment of the Bankruptcy Act of 1898, Congress asserted its Constitutional authority over bankruptcies and the state laws lapsed.

For many years, however, the Bankruptcy Act contemplated exclusively the liquidation of the assets of the debtor for the benefit of creditors, rather than reorganization and continued operation. With statutory authority for reorganization lacking, embarrassed debtors resorted to equity proceedings, and numerous precedents established by the federal courts in these cases provided a standardized procedure for the reorganization of business enterprises through the device of a **foreclosure sale** of the property for the benefit of creditors. Because of the absence of adequate supervision over such proceedings and the

desire to reduce the cost and time required to effect reorganizations, Congress in 1933 and 1934 provided for the first time corporate reorganization procedures under the Bankruptcy Act. Section 77 of the Bankruptcy Act was enacted for railroad reorganizations, and Section 77B for reorganization of other corporations. In practice, Section 77B was found to favor debtors unduly at the expense of creditors, and in the drastically revised Bankruptcy Act enacted in 1938 Section 77B was replaced by Chapter X.

THE BANKRUPTCY ACT OF 1938.—The Bankruptcy Act of 1938 codifies bankruptcy legislation passed by Congress up to that time. Chapters I through VII are concerned with bankruptcy proper, which contemplates a liquidation of the debtor's assets for the benefit of creditors. Chapter VIII includes Section 77, which was carried over from the old law intact, applicable to railroad reorganizations. Chapter IX, applicable to counties, municipalities, taxing and special assessment districts, was made permanent in 1946.

The most important reorganization procedure is Chapter X, entitled Corporate Reorganizations. For smaller corporations, Chapter XI provides the simplified procedure known as Arrangements. Chapter XII outlines a procedure for Real Property Arrangements by Persons Other Than Corporations. Chapter XIII covers Wage Earners' Plans. Chapter XIV applies to reorganizations arising out of Maritime Commission Liens. Chapter XV, enacted in 1942 for a three-year period, provided a simplified procedure for the relief of railroads unable to meet their debts as they mature, but found by the Interstate Commerce Commission not to require drastic reorganization under Section 77.

STEPS IN REORGANIZATION UNDER CHAPTER X.—The Bankruptcy Act provides for the following steps in effecting reorganizations under Chapter X:

1. Filing of the petition.
2. Appointment of trustees.
3. Formulation of a plan of reorganization.
4. Hearing on the reorganization plan.
5. Preparation of an advisory report by the S.E.C.
6. Approval of plan by the court.
7. Submission of plan to security holders.
8. Confirmation of the plan by the court, and its consummation.

Under the final decree of confirmation by the court, the reorganization plan becomes binding upon dissenters. This final decree takes the place of the foreclosure sale which was used to consummate reorganizations in equity proceedings, as a result of which dissenters were either wiped out or became entitled to their pro-rata share of the proceeds of foreclosure, after deduction of expenses.

Filing of the Petition.—A petition to reorganize a corporation under Chapter X of the Bankruptcy Act may be brought by the corporation itself, by three or more creditors whose claims aggregate $5,000 or more, or by an indenture trustee. Virtually all such petitions are filed, as a practical matter, by the debtor corporation. The petition should be filed with the court in whose territory the corporation has had its principal place of business or its principal assets for the preceding 6 months. In the case of a subsidiary corporation, the petition may be filed either

in the court in whose territory it has its principal place of business or in a court which has already approved a petition to reorganize by or against its parent corporation.

Each petition filed under Chapter X must state, as required by Section 130:

(1) that the corporation is insolvent or unable to pay its debts as they mature;
(2) the applicable jurisdictional facts requisite under this chapter;
(3) the nature of the business of the corporation;
(4) the assets, liabilities, capital stock, and financial condition of the corporation;
(5) the nature of all pending proceedings affecting the property of the corporation known to the petitioner or petitioners and the courts in which they are pending;
(6) the status of any plan of reorganization, readjustment, or liquidation affecting the property of the corporation, pending either in connection with or without any judicial proceeding;
(7) the specific facts showing the need for relief under this chapter and why adequate relief cannot be obtained under chapter XI of this Act; and
(8) the desire of the petitioner or petitioners that a plan be effected.

It will be noted that every petition under Chapter X must specify why adequate relief cannot be obtained under the shorter and simpler Chapter XI procedure. Where securities are held publicly, or where secured debts are involved, Chapter XI is not applicable and a statement of the pertinent facts would automatically meet the statutory requirement.

An involuntary petition to reorganize under Chapter X, brought by creditors or an indenture trustee, must add the following, as required by Section 131:

(1) that the corporation was adjudged a bankrupt in a pending proceeding in bankruptcy; or
(2) that a receiver or trustee has been appointed for or has taken charge of all or the greater portion of the property of the corporation in a pending equity proceeding; or
(3) that an indenture trustee or a mortgagee under a mortgage is, by reason of a default, in possession of all or the greater portion of the property of the corporation; or
(4) that a proceeding to foreclose a mortgage or to enforce a lien against all or the greater portion of the property of the corporation is pending; or
(5) that the corporation has committed an act of bankruptcy within four months prior to the filing of the petition.

The judge will enter an order approving a petition by a debtor to reorganize under Chapter X if satisfied that it complies with the requirements of Chapter X and has been filed in good faith. If not so satisfied, he is required to dismiss the petition. In the case of an involuntary petition brought by creditors or an indenture trustee, the debtor must file an answer controverting the facts alleged before 10 days, or a longer period if allowed by the court. If a satisfactory answer is not filed, the judge will enter an order approving the petiton where it complies with the requirements of Chapter X and has been filed in good faith.

The statute specifies in Section 146 that a petition shall be deemed not to be filed in good faith if:

(1) the petitioning creditors have acquired their claims for the purpose of filing the petition; or
(2) adequate relief would be obtainable by a debtor's petition under the provisions of Chapter XI of this Act; or
(3) it is unreasonable to expect that a plan of reorganization can be effected; or
(4) a prior proceeding is pending in any court and it appears that the interests of creditors and stockholders would be best subserved in such prior proceeding.

An order of the court approving a petition to reorganize will automatically stay mortgage foreclosure, equity receivership or bankruptcy proceedings, and any other action to enforce a lien against a debtor's property, unless the court should order otherwise.

Appointment of Trustees.—The judge will appoint one or more trustees to conduct the business of the debtor, pending reorganization, where liabilities aggregate $250,000 or more. Where the liabilities are less than $250,000, the judge retains discretion whether to appoint a trustee or continue the corporation in possession. Trustees and their attorneys must be "disinterested," which under the provisions of Section 158 bars any person if:

(1) he is a creditor or stockholder of the debtor; or
(2) he is or was an underwriter of any of the outstanding securities of the debtor or within five years prior to the date of the filing of the petition was the underwriter of any securities of the debtor; or
(3) he is, or was within two years prior to the date of the filing of the petition, a director, officer, or employee of the debtor or any such underwriter, or an attorney for the debtor or such underwriter; or
(4) it appears that he has, by reason of any other direct or indirect relationship to, connection with, or interest in the debtor or such underwriter, or for any reason an interest materially adverse to the interests of any class of creditors or stockholders.

To facilitate management of the business pending reorganization, the judge may appoint a director, officer, or employee of the debtor as an additional trustee. Furthermore, a trustee may employ an attorney who is not disinterested to represent him for any specified purpose other than the reorganization proceeding, with the approval of the judge.

A hearing must be held not less than 30 days and not more than 60 days after approval of the petition, at which objections to the appointment of any trustee will be heard. A date is designated by the court, at the time when the petition is approved, by which the trustee must prepare a list of creditors of each class, the amounts and character of their claims, and the names and known addresses of creditors and stockholders of the debtor.

If the judge so directs, the trustee is required by Section 167 to:

(1) investigate the acts, conduct, property, liabilities, and financial condition of the debtor, the operation of its business and the desirability of the continuance thereof, and any other matter

relevant to the proceeding or to the formulation of a plan, and report thereon to the judge;
(2) examine the directors and officers of the debtor and any other witnesses concerning the foregoing matters or any of them;
(3) report to the judge any facts ascertained by him pertaining to fraud, misconduct, mismanagement and irregularities, and to any causes of action available to the estate.

The purpose of this provision is to assure that claims against the management of the debtor corporation arising out of past acts shall be prosecuted where the judge believes a basis for such action exists. The decision whether or not such an investigation shall be prosecuted rests with the court.

The trustee is required to submit a brief statement to the court at an early date summarizing his investigation of the property, the liabilities and financial condition of the debtor, and his conclusion whether continuance of the business is desirable. He must also give notice to creditors and stockholders that they may submit proposals for a reorganization plan to him within a specified time. This gives the key role in formulating a plan to the trustee, rather than to the old corporate management as was usually the case in the past.

Formulation of a Plan of Reorganization.—The judge is required to fix a time within which the trustee shall prepare and file a plan of reorganization, or a report stating his reasons why a plan cannot be carried out. For corporations with liabilities of less than $250,000 where the debtor is continued in possession, a disinterested person may be appointed as "examiner" by the judge to prepare and file a plan and perform other duties of a trustee.

A plan of reorganization under Chapter X must conform to the following statutory requirements outlined in Section 216:

(1) shall include in respect to creditors generally or some class of them, secured or unsecured, and may include in respect to stockholders generally or some class of them, provisions altering or modifying their rights, either through the issuance of new securities of any character or otherwise;
(2) may deal with all or any part of the property of the debtor;
(3) shall provide for the payment of all costs and expenses of administration and other allowances which may be approved or made by the judge;
(4) may provide for the rejection of any executory contract except contracts in the public authority;
(5) shall specify what claims, if any, are to be paid in cash in full;
(6) shall specify the creditors or stockholders or any class of them not to be affected by the plan and the provisions, if any, with respect to them.

A plan may provide, to assure its execution, for the sale of corporate property; a merger of the debtor with one or more other corporations; the sale of property subject to or free of lien, or the issuance for cash of new securities, property, or other securities. In the case of any class of securities which does not accept the plan approved by the required two-thirds majority, the plan must provide for the realization by such security holders of the value of their claims or equity "(a) by the transfer or sale, or by the retention by the debtor, of such property subject to such claims; or (b) by a sale of such property free of such

claims, at not less than a fair upset price, and the transfer of such claims to the proceeds of such sale; or (c) by appraisal and payment in cash of the value of such claims; or (d) by such method as will, under and consistent with the circumstances of the particular case, equitably and fairly provide such protection."

Where a lease or other executory contract is rejected during reorganization, or in the reorganization plan, any person injured thereby may file a claim as a creditor. The law limits the claim of a landlord, where an unexpired lease of real estate is rejected, to 3 years' rent following the date of surrender of the premises, plus unpaid accrued rent.

Hearing on the Reorganization Plan.—The judge is required to hold a hearing on the reorganization plan following the expiration of the time allowed the trustee to file his plan. At this hearing, objections to the plan, amendments thereto, or other plans may be presented by the debtor corporation or by any creditor or stockholder.

Following this hearing, the judge must submit the plan or plans presented to the Securities and Exchange Commission if the indebtedness exceeds $3,000,000 and may do so at his discretion if the indebtedness is less than this sum. He is not to approve or disapprove a plan until the S.E.C. has filed its report, or has failed to do so by the date set by the court.

Advisory Report by the S.E.C.—The Securities and Exchange Commission is authorized under Chapter X to appear as a party to a reorganization proceeding, either upon its own motion if approved by the judge or if requested by him. It is customary for the Commission to become a party where substantial amounts of securities of the debtor corporation are held by the public.

Whether or not the Commission has appeared previously as a party to the proceeding, the judge must call upon it to examine a reorganization plan and prepare an advisory report upon it where scheduled indebtedness exceeds $3,000,000. The judge may fix a date by which the Commission's report shall be filed. Until this report is filed, the S.E.C. notifies the judge that it will not file a report, or the date fixed has expired, whichever first occurs, the judge may not enter an order approving the plan.

The S.E.C. report discusses whether the plan or plans submitted are (1) feasible and (2) fair and equitable. A plan is feasible if it will place the corporation in a position where it is not likely to suffer renewed financial embarrassment. A plan is fair and equitable if it treats each class of securities or creditors in accordance with its legal priority.

Approval of Plan by the Court.—The judge, in entering an order approving one or more plans of reorganization submitted by the trustee or others, must find that it (1) complies with the requirements of the law covering the reorganization plan, as contained in Section 216 of Chapter X of the Bankruptcy Act; (2) is fair and equitable; (3) is feasible. The requirements of Section 216 are outlined above under Formulation of a Plan of Reorganization.

Submission of Plan to Security Holders.—The judge, in approving the plan, is required to set a time within which the creditors and stock-

holders affected may accept the plan. For this purpose, the judge must fix the division of creditors and stockholders into classes according to the nature of their claims and stock. It is important to each class of securities to know whether it is placed in a separate class, for this may determine whether the requisite approval will be forthcoming. Security holders are not considered affected by a plan if they are either undisturbed or wiped out entirely.

The trustee is required to transmit to creditors and stockholders affected by a plan, to aid them in voting, the following:

(1) the plan or plans approved, together with a summary thereof;
(2) the opinion of the judge, if any, approving the plan, or plans, or a summary thereof approved;
(3) the report, if any, filed in the proceeding by the Securities and Exchange Commission, or a summary thereof prepared by the Securities and Exchange Commission; and
(4) such other matters as the judge may deem necessary or desirable for the information of creditors and stockholders.

It is forbidden, without the court's consent, to solicit acceptance of a plan, conditional or unconditional, until the court has entered an order approving the plan and its transmittal to creditors and stockholders.

A plan is considered accepted by any class of creditors if acceptances in writing are filed in the court on behalf of creditors holding two-thirds in amount of the claims filed and allowed of that class. If the debtor has not been found insolvent, acceptances must also be filed by or on behalf of holders of the majority of stock, of which proofs have been filed and allowed. To prevent persons with conflicting interests from pushing through or preventing the adoption of a plan, the statute provides:

> If the acceptance or failure to accept a plan by the holder of any claim or stock is not in good faith, in the light of or irrespective of the time of acquisition thereof, the judge may, after hearing upon notice, direct that such claim or stock be disqualified for the purpose of determining the requisite majority for the acceptance of a plan.

Confirmation of the Plan by the Court, and Its Consummation.—Following acceptance of the plan by creditors and stockholders affected, the judge must call a hearing, notice of which must be given the debtor corporation, creditors, stockholders, indenture trustees, the Secretary of the Treasury, the Securities and Exchange Commission, and any other persons designated by the judge, to consider confirmation of the plan. The judge is to confirm the plan if he is satisfied that the following requirements of Section 221 have been met:

(1) the statutory standards applicable to a plan of reorganization, and satisfaction of claims of the United States Treasury against the debtor have been complied with;
(2) the plan is fair and equitable, and feasible;
(3) the proposal of the plan and its acceptance are in good faith and have not been made or procured by means or promises forbidden by this Act;
(4) all payments made or promised by the debtor or by a corporation issuing securities or acquiring property under the plan or by any other person, for services and for costs and expenses in, or in connection with, the proceeding or in connection with the plan

and incident to the reorganization, have been fully disclosed to the judge and are reasonable or, if to be fixed after confirmation of the plan, will be subject to the approval of the judge; and

(5) the identity, qualifications, and affiliations of the persons who are to be directors or officers, or voting trustees, if any, upon the consummation of the plan, have been fully disclosed, and that the appointment of such persons to such offices, or their continuance therein, is equitable, compatible with the interests of the creditors and stockholders and consistent with public policy.

Once confirmed, a plan becomes binding upon the debtor, upon every other corporation issuing securities or acquiring property under the plan, and upon all creditors and stockholders whether or not they are affected by the plan, have accepted it, or have filed proofs of their claims or interests. Upon consummation of the plan, Section 228 provides that the judge shall enter a final decree:

(1) discharging the debtor from all its debts and liabilities and terminating all rights and interests of stockholders of the debtor, except as provided in the plan or in the order confirming the plan or in the order directing or authorizing the transfer or retention of property;
(2) discharging the trustee, if any;
(3) making such provisions by way of injunction or otherwise as may be equitable; and
(4) closing the estate.

The judge may also specify that, not sooner than 5 years after the final decree, holders of securities who have not presented or surrendered them shall not participate in distributions under the plan. Securities or cash remaining unclaimed at the expiration of such time become the property of the debtor, or of the new corporation if one is set up to acquire the assets of the debtor under the plan.

COMPENSATION AND ALLOWANCES.—The judge must pass on costs and expenses incurred by creditors, trustees and their attorneys, attorneys for petitioning creditors, a referee, or a special master in Chapter X proceedings. The judge may also allow reasonable compensation for services rendered by indenture trustees, depositaries, reorganization managers, committees or representatives of creditors or stockholders, or attorneys or agents of the foregoing. A separate hearing is held to consider applications for these allowances. Each person claiming compensation for services rendered or reimbursement for costs and expenses incurred in a Chapter X proceeding must file with the court a statement under oath showing acquisition or transfers of claims or stock interests after the commencement of the proceeding. No compensation or reimbursement will be allowed to any committee or attorney, or other person acting in the proceedings in a representative or fiduciary capacity, who at any time after undertaking to act in this capacity has purchased or sold such claims or stock without the prior consent or subsequent approval of the judge.

REPRESENTATION OF SECURITY HOLDERS.—Chapter X regulates persons or committees representing more than twelve creditors or stockholders in a reorganization proceeding, as well as indenture trustees. Under Section 111, each such person, committee, or trustee must file a statement with the court under oath containing:

(1) a copy of the instrument, if any, whereby such person, committee, or indenture trustee is empowered to act on behalf of creditors or stockholders;
(2) a recital of the pertinent facts and circumstances in connection with the employment of such person or indenture trustee, and, in the case of a committee, the name or names of the person or persons at whose instance, directly or indirectly, such employment was arranged or the committee was organized or formed or agreed to act;
(3) with reference to the time of the employment of such person, or the organization or formation of such committee, or the appearance in the proceeding of any indenture trustee, a showing of the amounts of claims or stock owned by such person, the members of such committee or such indenture trustee, the times when acquired, the amounts paid therefor, and any sales or other disposition thereof; and
(4) a showing of the claims or stock represented by such person or committee and the respective amounts thereof, with an averment that each holder of such claims or stock acquired them at least one year before the filing of the petition or with a showing of the times of acquisition thereof.

The judge may disregard any provision of a depositary agreement, proxy, power of attorney, or indenture which he finds to be unfair or not consistent with public policy. A claim or stock acquired by members of a protective committee, indenture trustee, an agent, or an attorney representing creditors or stockholders may be limited, in its treatment in reorganization, to the actual consideration paid.

A fuller discussion of protective committee operation is given below.

Arrangements Under Chapter XI

DEFINITION.—An arrangement is defined in the statute as a "plan of a debtor for the settlement, satisfaction, or extension of the time of payment of his unsecured debts." It may include, according to Section 357:

(1) provisions for treatment of unsecured debts on a parity one with the other, or for the division of such debts into classes and the treatment thereof in different ways or upon different terms;
(2) provisions for the rejection of any executory contract;
(3) provisions for specific undertakings of the debtor during any period of extension provided for by the arrangement, including provisions for payments on account;
(4) provisions for the termination, under specified conditions, of any period of extension provided by the arrangement;
(5) provisions for continuation of the debtor's business with or without supervision or control by a receiver or by a committee of creditors or otherwise;
(6) provisions for payment of debts incurred after the filing of the petition and during the pendency of the arrangement, in priority over the debts affected by such arrangement;
(7) provisions for retention of jurisdiction by the court until provisions of the arrangement, after its confirmation, have been performed; and
(8) any other appropriate provisions not inconsistent with this chapter.

FILING A PETITION.—A petition to effect an arrangement must always be filed by the debtor corporation. This may be done either before or after adjudication in bankruptcy. A petition must state "that the debtor is insolvent or unable to pay his debts as they mature," and set forth the provisions of the arrangement proposed. It must be accompanied by a statement of the executory contracts of the debtor and a statement and schedules of his affairs, if one was not previously filed.

The court may, upon application of the debtor, grant a stay of adjudication or of the administration of the estate in bankruptcy, following filing of the petition to effect an arrangement. The mere act of filing does not act as such a stay automatically. The court may direct the debtor to file a bond with approved sureties indemnifying the estate against subsequent loss, pending confirmation of an arrangement.

PROCEEDINGS.—The court may appoint a receiver for the property of the debtor corporation, and one or more appraisers to prepare an inventory of its property. Also, the judge may refer the proceeding to a referee.

The statute requires the court to call a meeting of creditors upon at least 10 days' written notice. The notice must be accompanied by a copy of the proposed arrangement, as well as a summary of liabilities and appraisal of the assets, if one has been made. At this meeting, the judge or referee presides, passing upon proofs of claims and receiving written acceptances of creditors on the proposed arrangement. In an arrangement, unlike a statutory reorganization, acceptances may be sought before the filing of a petition, as well as afterwards.

The management of the debtor remains in possession of the property where no receiver or trustee is appointed.

CONFIRMATION.—Where all creditors affected have accepted an arrangement in writing, the court may confirm it forthwith. Otherwise, an application for confirmation is to be filed with the court after the arrangement has been accepted in writing by a majority in number and amount of all creditors, or, if the creditors are divided into classes, by a majority in number and amount of the creditors of each class affected by the arrangement.

Money or securities to be distributed to creditors affected by the arrangement must be deposited with the court before confirmation.

Before a court may confirm an arrangement, it must under Section 366 see that it conforms to the following 5 tests:

(1) the provisions of Chapter XI have been complied with;
(2) it is for the best interests of the creditors;
(3) it is fair and equitable and feasible;
(4) the debtor has not been guilty of any of the acts or failed to perform any of the duties which would be a bar to the discharge of a bankrupt; and
(5) the proposal and its acceptance are in good faith and have not been made or procured by any means, promises, or acts forbidden in the Act.

Following confirmation, an arrangement is binding not only upon the creditors affected, but upon all creditors of the debtor corporation.

Where an executory contract is rejected by the terms of an arrangement, the injured party is deemed a creditor. Claims of landlords for future rents are limited to 3 years' future rental, as in Chapter X reorganizations.

Railroad Reorganization

SPECIAL FACTORS.—Section 77 of the Bankruptcy Act differs from Chapter X in one fundamental respect—the Interstate Commerce Commission is given the key role in the procedure, rather than the mere advisory part assigned to the Securities and Exchange Commission in Chapter X cases. Plans of reorganization are filed in the first instance with the Commission, which issues an examiner's report on a plan of reorganization and subsequently its own final plan. Until a plan has been issued by the Commission, either one filed with it or one of its own, the court cannot proceed. Furthermore, the Interstate Commerce Commission ballots security holders following approval of its plan by the court. The role of the court in railroad reorganization was severely curtailed by the United States Supreme Court in the Chicago, Milwaukee, St. Paul & Pacific and Western Pacific cases, decided March 15, 1943. In these cases, the highest court ruled that findings as to valuation and other facts by the Commission shall be final, and not subject to review by the courts, whose jurisdiction is limited to seeing that the procedure followed has conformed to the requirements of the law.

One provision of Section 77 provides that the judge may confirm a plan of reorganization which has not been accepted by two-thirds in amount of each class of creditors or stockholders affected, if he finds "that it makes adequate provision for fair and equitable treatment of the claims or interests of those rejecting it, that the rejection is not reasonably justified, that the plan otherwise conforms to all of the applicable requirements of the section."

A simplified procedure for the readjustment of railroad capital structures was authorized in the **"Mahaffie Act"** of 1948, to be effected under the Interstate Commerce Act rather than the Bankruptcy Act. Under this law, the provisions of any class of railroad securities may be altered or modified with the approval of the Interstate Commerce Commission, without further submission to a court. The authority of the Commission under this law is "exclusive and plenary." Such a plan of modification is to be submitted to the Commission by the railroad corporation with evidence of approval by a substantial number of holders of the issues affected. When approved by the Commission and at least 75% of each class of securities effective, the modification then becomes compulsory for all holders of such securities.

Because of the complexity of railroad debt structures, it is customary to make a segregation of earnings study for a test period to determine the earning power of each mortgaged division, as a basis for a plan of reorganization. The formula may be submitted by the court to the Interstate Commerce Commission for its approval.

Section 77 exempts holders of railroad equipment trust issues and collateral obligations held by the Reconstruction Finance Corporation

from the general stay against creditors enforcing their claims. The theory is that such obligations will become impaired in value if the holders are not permitted to act promptly to protect their interests in the event of reorganization.

The Reorganization Plan

LEGAL LIMITATIONS.—The statutes and court decisions interpreting them have circumscribed in essential respects the nature of reorganization plans. Those who approve such plans are not free to use their discretion, but must conform to the legal limitations if they are to receive the requisite approval of the courts.

The statutes require that a plan of reorganization must be "fair and equitable." The United States Supreme Court has interpreted this term to give it a very concrete significance. A plan will not be considered fair and equitable unless it is consistent with standards laid down by the United States Supreme Court in a long line of cases, of which the best known is Northern Pacific Railway Co. v. Boyd [228 U.S. 482 (1913)]. The Boyd case principle was confirmed anew for statutory reorganization in Case v. Los Angeles Lumber Products Co. [308 U.S. 106 (1939)]. In this latter case, the leading decision governing present-day corporate reorganization, the Supreme Court required that senior creditors or stockholders shall be covered in full with new securities issued in reorganization before junior issues may participate in the plan. Even where senior and junior security holders have agreed to a compromise plan, the court is required to ignore this and to make an independent finding that priorities have been recognized. This ruling is known as the doctrine of absolute priority, which rejects the theory that a plan of reorganization is designed "for the relief of debtors" and requires that priority of claim be recognized literally.

To make a plan of reorganization feasible, the same class of securities of the reorganized company may have to be issued to two or more classes of claims of the corporation undergoing reorganization. In that event, senior securities may be given a larger amount of the new securities per dollar of claim, as "equitable compensation" for the loss of their prior position.

VALUATION OF PROPERTY.—The doctrine of absolute priority makes it necessary to secure a valuation of the property of the corporation undergoing reorganization, to determine which securities are to be recognized and which must be wiped out because of a lack of equity. In the eyes of the law, such securities are not wiped out by the reorganization plan; rather the court is held merely to recognize a loss in value that has already taken place.

The United States Supreme Court in Consolidated Rock Products Co. v. Du Bois (312 U.S. 510), as well as in railroad cases, has held that a valuation of property for reorganization purposes shall be based upon prospective earning power, rather than the original cost of assets. Similarly, in determining the treatment of individual security issues, the earning power of the property upon which they have a lien will determine relative treatment. The court in the Consolidated Rock Products Co. case said that "the criterion of earning power is the essential

one if the enterprise is to be freed from the heavy hand of past errors, miscalculations or disaster and if the allocation of securities among the various claimants is to be fair and equitable."

Because valuation thus plays a key role in the treatment of individual security issues, creditors and stockholders have a major interest in the way in which it is conducted. Sometimes, a higher valuation may be secured by using sales prices for assets not needed in the business, that are to be liquidated rather than retained to contribute to earning power.

PREPARATION FOR REORGANIZATION.—During operation of the property of the debtor by the trustee, important preparations can be made for reorganization. Since interest does not have to be paid, earnings can be devoted to making up deferred maintenance and effecting necessary property improvements. Burdensome leases and other contracts can be rejected, accrued taxes paid, and activities that reduce earning power curtailed or eliminated. The trustee can also build up cash so that the enterprise will have a stronger working capital position at the time of reorganization.

Trustees may with the court's approval pay off prior obligations, with a view to simplifying the capital structure of the reorganized enterprise. On the other hand, trustees may borrow for needed expenditures through the issuance of trustee certificates, which may be exchanged for prior lien obligations at the time of reorganization if they are not paid off before or at that time. Trustees may apply to the court to make interest payments on outstanding obligations from time to time, if earnings and cash position justify and if they do want to prevent accumulation of unpaid interest which adds to the debts of the corporation. Since the claim to unpaid interest normally ranks *pari passu* with claims to principal, delay in reorganization may largely increase prior obligations coming ahead of the stock. Accumulation of dividends on cumulative preferred stock has the same effect as far as the common is concerned.

OBJECTIVES OF THE PLAN.—A sound plan of reorganization will achieve the following five objectives:

1. Reduce fixed charges.
2. Eliminate burdensome debt maturities.
3. Assure adequate working capital.
4. Facilitate the raising of new capital in the future.
5. Pave the way for a sound financial policy after reorganization.

In addition, a plan of reorganization may provide for a sounder business basis for the enterprise through:

1. Dropping departments or activities which reduce earning power.
2. Adding departments or activities, through merger or otherwise, that increase earning power.
3. Providing competent management.

REDUCTION OF FIXED CHARGES.—No reorganization plan is "feasible," and will be approved by regulatory commissions and courts as such, unless fixed charges are reduced to a level that can be earned with a margin even in less favorable years. Where earnings of

a corporation are sensitive to the business cycle, fixed charges should be limited to an amount that can be covered in all but the very worst depression years. In various railroad reorganization plans, where reduction of fixed charges was the primary objective, the I.C.C. sought to have fixed interest and lease rentals earned 1.5 times on the average. Where an industry or corporation suffers from a long-term downward trend of earnings, even such a level of fixed charges may involve the danger of renewed financial embarrassment later, unless a sinking fund will reduce debt further over a period of years.

It is not enough that average earnings will suffice to cover fixed charges. A financially sound enterprise must be able to earn its fixed charges also during a protracted depression. Where the earning power of a business tends to disappear entirely in depressions, serious consideration should be given to the substitution of contingent interest bonds or stock for all outstanding fixed interest debt.

Where fixed charges are excessive, there are several ways by which they can be reduced in reorganization plans. These are:

1. A lowering of the rate of interest on outstanding bonds, particularly where it is higher than the prevailing level. Even a well-secured bond is entitled only to new obligations that would have a value approximating parity. Since reorganization will strengthen the credit of the corporation, a lower coupon bond may nevertheless have a value approaching par even where the original issue sold at a substantial discount from parity before the reorganization.
2. Substitution of income bonds in part or whole for fixed interest obligations. Income bonds are favored over preferred or common stock because interest due on them is deductible from the taxable income of a corporation and because many financial institutions prefer to hold bonds rather than stocks in their portfolios. Furthermore, since interest earned must be paid upon income bonds as a rule, whereas dividends on preferred stock can be passed by the board of directors whether earned or not, the income bond is a relatively more attractive security. In a few instances, it has been provided that income bond interest shall become fixed after a few years, or if earned in, say, 3 successive years. Sometimes, where the record of earnings is sufficient, interest may be made part fixed and part contingent.
3. Fixed interest bonds may be exchanged in part for preferred or common stock. In more drastic reorganizations, where severe loss of earning power makes even the payment of contingent interest questionable, this is preferable.
4. Fixed charges can be reduced in many instances through retirement of part or all of the funded debt, during trusteeship or at the time of reorganization, by the use for this purpose of cash derived from the sale of unnecessary assets or from earnings.
5. Where a sufficient reduction in fixed charges is not practicable in the reorganization plan, steps can be taken to effect a further cut through sinking fund provisions; through arrangements for liquidation of assets after reorganization, the proceeds to be applied to additional debt reduction; by making bonds convertible and by issuing stock purchase warrants, funds from the exercise of which must be applied to debt retirement.

ELIMINATION OF BURDENSOME MATURITIES.—A reorganization cannot be successful, and therefore the plan will not be considered feasible by regulatory agencies or the courts, if the debtor is left with burdensome debts that will mature within a few years after

the reorganization. Hence, the plan should provide for the elimination of substantial debt maturities during a period of 5 or 10 years, and preferably longer. Burdensome debt maturities may be eliminated by:

1. Extension of the maturity of obligations of the reorganized company to distant dates.
2. Provision of adequate sinking funds that will assure retirement of debts of the reorganized company in whole or large part before they mature.
3. Provision of sufficient cash in the reorganization to meet maturities over a period of years.
4. Underwriting arrangements with bankers to assure funds for early maturities from the sale of new security issues at the maturity dates.
5. Negotiation of sale of assets pledged to secure debts coming due within the near future, perhaps with the purchaser assuming the obligations. This is practicable where the pledged assets are not necessary for the future operation of the business.
6. Granting of conversion privileges to bonds coming due within a limited period of years, with the expectation that part or all of the bonds will be converted in the event of a period of prosperity.

PROVISION OF ADEQUATE WORKING CAPITAL.—A plan of reorganization must assure that the company will not encounter financial embarrassment again following its emergence from the jurisdiction of the courts. This objective requires that working capital shall be adequate not only for immediate needs, but shall provide a margin for contingencies, visible and possible. Unless adequate working capital is provided, a plan of reorganization is not "feasible" as that term has been defined by the Securities and Exchange Commission and the courts.

In many instances, additional cash must be raised as part of the plan of reorganization. Among the methods commonly used to raise cash are:

1. Assessment of stockholders, who either receive new securities for the assessment or merely retain their old equity. Assessments have become unusual, although they were quite common in equity reorganizations. The reason for this was that stockholders were normally wiped out through the foreclosure sale in equity, so that they could be coerced to pay the assessment. Since stockholders participate in a reorganization plan under the Bankruptcy Act only if the valuation shows that they possess an equity over prior claims, and then only to the extent of that equity, the coercive factor no longer exists.
2. Sale of new bonds, preferred stock or common stock to underwriters, to security holders of the company, or to other buyers. In some cases, a holding company or affiliated enterprise may purchase securities of a corporation undergoing reorganization, thereby providing the new capital required.
3. Issuance of stock-purchase warrants to security holders or others. These warrants may be made exercisable within a short period, and funds derived from such subscriptions are then added to working capital.
4. A term loan may be secured from a bank, an insurance company, or the Reconstruction Finance Corporation. A corporation not in position to put up collateral to induce these institutions to make such a loan may, thanks to the reorganization, enjoy such an improvement in credit standing that accommodation may be available without special collateral.

5. A corporation may dispose of unnecessary assets, including securities of subsidiaries that are no longer needed by the business, to raise cash.
6. Sometimes reorganization is postponed for a period so that cash can be accumulated out of earnings during the trusteeship. Outside sources do not then have to be tapped for additional working capital.

FACILITATING FUTURE FINANCING.—A sound reorganization should not only provide adequate working capital immediately but also reasonable assurance that new capital can be raised for expansion and other needs in the future. This can be done by:

1. Authorizing a prior lien mortgage, under which bonds would be sold in the future to provide new capital as needed. Where a mortgage bond issue is issued as part of the reorganization plan, provision may be made for the issuance of additional bonds under this lien for new capital.
2. Having valuable assets on hand free of lien, that can be pledged for loans if necessary.
3. Establishing a capital fund out of earnings before interest need be paid upon income bonds. Earnings can thus be retained to finance expansion or modernization, even though income bonds require earnings to be paid out as interest upon such obligations.
4. Authorizing a prior preferred stock issue to raise new capital, where it is felt that preferred would be salable under all conditions.
5. Providing adequate sinking funds on outstanding bond issues, so that they can be retired over a period of years to strengthen the company's credit and thus permit new financing on attractive terms.
6. Limiting the common stock issue, so that these shares can achieve an investment status in time and become a suitable vehicle for new financing.
7. Simplification of the reorganized corporation's capital structure through the elimination of divisional, collateral trust, and other obligations, and through absorption of publicly held securities of subsidiaries. Some railroad reorganizations have exchanged a score or more security issues for four or five bond and stock issues covering the entire system. This may greatly facilitate future financing and refunding.

ASSURE SOUND FINANCIAL POLICY AFTER REORGANIZATION.—The plan of reorganization can include safeguards to help prevent a recurrence of financial strain in the future. These may take the form of:

1. Sinking funds on outstanding bonds and other debts, to assure their orderly retirement out of earnings over a period of years.
2. Dividend limitations for the initial period following reorganization, such as a provision that cash dividends on the common stock shall not be paid if they will reduce current assets to less than twice current liabilities.
3. Low call prices on bonds and preferred stock issued, to facilitate future refunding at lower interest and dividend rates.
4. Election to the board of directors of representatives of bondholders and other creditors, who are certain to favor conservative financial policies.
5. Accounting adjustments, such as the write-off of goodwill and other intangibles, to reduce surplus and thus provide an additional restraining influence upon excessive dividend payments.

PRESENTATION OF A REORGANIZATION PLAN.—The more complex the capitalization of a corporation undergoing reorganization, the more difficult it is to present the salient facts about the plan in understandable form to the security holders affected. This is often done in tabular form, to make clear at a glance the status of the enterprise before and after reorganization, and the treatment to be accorded each security issue.

Presentation of a plan is particularly difficult in the case of railroads, because of the large number of security issues involved. Examples will be shown here from that field, although the same principles apply in presenting reorganization plans for industrial and public utility corporations.

Two tables are customarily included in presenting a more complex reorganization plan. One shows the effect of the plan upon total capitalization and annual charges, and the other the treatment of each security issue. One way of showing the effect of reorganization upon capitalization and annual charges is the table in Fig. 1 summarizing the reorganization plan of the Erie Railroad put through in 1941.

A convenient way to show the treatment accorded in the plan to a large number of security issues, so that holders of each issue can readily determine their status, is the table from the reorganization plan of the Chicago, Milwaukee, St. Paul & Pacific Railroad Co., shown in Fig. 2.

In industrial reorganizations, where only a few classes of securities and creditors are involved, shorter tables or a mere description of the treatment of each class of security may suffice for a clear presentation of the plan to security holders and others interested.

Protective Committees in Reorganizations

FORMATION OF COMMITTEES.—When a corporation encounters financial difficulties and a reorganization of its financial structure is imminent, committees may be appointed to look after the interests of the various classes of bondholders, other creditors, and stockholders. If the company has several classes of securities outstanding one committee may represent the mortgage bondholders, another the debenture holders, another the short-term unsecured creditors, another the preferred stockholders, and another the common stockholders.

It is generally found advisable to have a committee for each class of security holders having a distinct interest in the company to protect. For a single committee to represent two or more classes may lead to charges that the committee is favoring one class as against another.

A protective committee is a more or less self-appointed body, the initiative often being taken by bankers who distributed the securities, after consultation with large institutional and other holders. The committee may be composed of representatives of the bankers, large holders, and others who will lend it prestige and standing. An officer of the trustee may be a member, but since the trustee represents all bondholders—both those who respond to the committee's appeal and those who do not—this may lead to embarrassment. The committee or committees of the holders of the floating debt, if any are appointed as is

Capitalization

Before Reorganization			After Reorganization		
Equipment Obligations	$ 18,233,000		Equipment Obligations	$14,124,000	
Fixed Interest and Leased Line Obligations	296,372,530		Leased Line Obligations	7,244,340	
			Undisturbed and Assumed Obligations..	39,007,000	
Old Fixed Obligations		$314,605,530	Coll. Trust Serial 3⅛s, 1953	10,000,000	
Income Obligations		None	1st Mtge. "B" 4s, 1995	74,212,600	
			1st Mtge. "C" 4s, 1957	5,955,000	
Total Old Debt (Fixed and Contingent)		$314,605,530	Total Fixed Interest Obligations		$150,542,940
Noncumulative Preferred, $100 Par	$ 63,761,400		General Mtge. Income "A" 4½s, 2015	$51,030,795	
Common $100 Par	151,106,700		Total Debt (Fixed and Contingent)		201,573,735
Total Old Stock		214,868,100	5% Cum. Preferred Stock, $100 Par	40,340,455	
Total Old Capitalization		$529,473,630	Common Stock No-Par (2,455,793 shs.) (Stated at $40 per share)	98,231,715	
Claims for unpaid interest		23,895,648			
Total Old Claims		$553,369,278	Total Capital Stock		138,572,170
			Total Capitalization		$340,145,905

Annual Charges

Fixed			*Fixed*		
Equipment Obligations	$ 694,975		Interest on Equipment Obligations	$ 483,307	
Other Fixed and Leased Line Charges..	13,165,659		Leased Line Obligations	362,217	
			Undisturbed and Assumed Obligations Interest	1,533,498	
Total Old Fixed Charges		$ 13,860,634	Coll. Trust 4s, 1953 interest	312,500	
Total Old Contingent Charges		None	1st Mtge. "B" 4s, 1995 interest	2,968,504	
Total Old Charges (Fixed and Contingent)		$ 13,860,634	1st Mtge. "C" 4s, 1957 interest	238,200	
Total Preferred Dividend Requirements		2,550,456	Total Fixed Charges		$ 5,898,226
Total Old Charges Before Dividends on Common Stock		$ 16,411,090	*Contingent*		
			Capital Fund	$ 1,789,037	
			Sinking Fund 1st Mtge. "B" and "C" 4s	300,000	
			Gen. Mtge. "A" Inc. 4½s, 2015 interest.	2,296,386	
			Gen. Mtge. "A" Inc. 4½s, 2015 S.F. (½ of 1%)	263,212	
			Total Contingent Charges		4,648,635
			Total Charges (Fixed and Contingent)		$ 10,546,861
			5% Cum. Preferred ($100 Par) Dividend Requirements		2,017,020
			Total Charges before Dividends on Common Stock		$ 12,563,881

FIG. 1. Analysis of a Reorganization Plan in Table Form

	New Securities and Cash per $1,000 Principal Amount					Pfd. Stock Par $100	Com. Stock Shares
	Out-standing	Cash (paid June 1, '45)	First Mtge. 4s	Gen. Mtge. Bonds Series A	Series B		
Milwaukee & Northern first 4½s	$2,117,000	$100.50	$1,000	.....	.....	.....	.....
Milwaukee & Northern consol. 4½s	5,072,000	208.67	410.3149	$409.3034	$229.1317	.....	.....
General mortgage bonds:							
Series A coupon	48,241,000	173.5296	398.1945	397.2124	222.3635	.....	.....
Registered		168.6625	397.7591	396.7780	222.1204	.....	.....
Series B coupon	8,950,000	140.2989	396.7395	395.7608	221.5510	.....	.....
Registered		135.9476	396.3995	395.4219	221.3609	.....	.....
Series C coupon	42,597,000	208.2491	399.0633	398.0790	222.8486	.....	.....
Registered		202.7773	398.5749	397.5919	222.5759	.....	.....
Series E coupon	24,000,000	208.2490	399.0633	398.0790	222.8487	.....	.....
Registered		202.7797	398.5740	397.5909	222.5754	.....	.....
Series F coupon	15,000,000	225.6074	399.4982	398.5128	223.0916	.....	.....
Registered		219.7380	399.0000	398.1000	222.7720	.....	.....
50-year mortgage 5s	106,395,096	225.78	.....	.....	182.0507	$1,013.7826	.....
Convertible adjustment 5s	182,873,693	.....	.....	.....	.....	.....	$11.600812
Chicago, Milwaukee & Gary first 5s	3,000,000	.....	.....	.....	.....	1,437.5000	.....

FIG. 2. Treatment of Individual Securities, Shown in Table Form

generally the case in industrial reorganizations, are usually formed and dominated by the large bank creditors. Stockholders' committees may be organized at the instance of the management of the corporation. Members of the committees have to be chosen with care. Unless they are in good standing and are associated with representative firms or banks or are large security holders themselves, or associated with financial institutions which are large holders, other security holders may be skeptical about permitting them to represent their interests.

Each committee elects one of its members as chairman, appoints counsel to advise it on the legal problems that are likely to arise, and appoints a secretary who will attend to administrative details.

DEPOSIT OR PROTECTIVE AGREEMENT.—One of the first duties of a protective committee's counsel may be to draft the agreement under which holders will be asked to deposit their securities or claims with the committee. If the securities are bonds, they will be delivered to the committee's depositary, a bank or trust company appointed for the purpose. If stock, certificates are assigned to the committee but are not transferred to its name on the corporation's books until a step in the reorganization makes it necessary, since if the deposited stock is returned to its owners, the payment of the transfer tax will thereby be avoided. In return depositing bondholders or stockholders receive from the depositary its certificates of deposit issued to represent the deposited securities. These may be admitted to dealings on the stock exchange in place of the securities they displace. Until undeposited bonds or stock are reduced to a small amount, both the securities and the certificates of deposit will be traded in on the exchange.

Protective committees do not ask for deposits in some cases, or may seek merely intentions to deposit to show they represent a substantial amount of the securities.

POWERS OF COMMITTEE.—As a protective committee requires broad powers to cope with whatever emergency may arise in negotiations looking toward reorganization, provisions of the deposit agreement are of very sweeping character. The purpose of the agreement is often to place the committee practically in the position of the owners of the securities deposited, with power to pursue all the remedies open to them. In addition to the general grant of power to take necessary steps to protect the interests of the depositors, the agreement usually contains a long enumeration of specific powers as well as disclaimers of liability. These provisions will vary with the nature of the securities deposited under the agreement. While making the document bulky, the enumeration of specific powers is considered necessary because of the attitude of the courts in construing provisions strictly against the committee and in favor of the depositors. This attitude is based on the legal theory that a contract should be strictly construed against the party who had exclusive charge of its preparation and who is also in a fiduciary relation to the other party or parties to the contract.

Deposit agreements have certain general features in common. A summary of these is as follows:

1. Appointment of a depositary and issuance of certificates of deposit, the form of which is incorporated in the agreement.
2. The manner in which the committee is to function—its power to take action by the majority vote of its members, who may act by proxy at meetings of the committee or by giving their consent in writing.
3. The various powers granted the committee to act and use the deposited securities for whatever purpose may be necessary in promoting and protecting the interests of the depositing security holders. It may, for example, pledge the securities to obtain a loan of funds that it may need. The committee representing bondholders will deal in their behalf with the trustee under the indenture under the various provisions contained therein.
4. Authority of the committee to prepare and propose, or to accept a plan of reorganization, and a statement of the rights of depositors when a plan is adopted or if no plan is adopted within a specified time.
5. The right of depositing stockholders to withdraw from the agreement at any time upon payment of their proportion of the committee's expenses and compensation, amounting usually to a certain small percentage on their securities. This percentage is larger in the case of small issues of securities than it is in the case of large issues. However, it is generally limited to not over 2%, though in the case of small companies it may be as high as 5%.
6. The power of the committee to take action as soon as a certain percentage of the securities have been deposited with it, or at its discretion thereafter.
7. Provision absolving the committee from all liability except that it act in good faith.

NOTICE TO SECURITY HOLDERS.—When the deposit agreement has been drafted and executed and a copy of it has been lodged with the depositary trust company as evidence of its appointment, the committee announces its existence and the execution of the agreement, and invites security holders to become parties to the agreement by depositing their holdings with the trust company, copies of the agreement being available to those requesting them. Stockholders can be reached directly by circular letter. In the case of bondholders, some other means of communicating with them has to be employed. In a large company, with a wide distribution of its bonds, the usual method is to advertise in financial papers and in the financial columns of the general newspapers. Notice of the formation of the committee is sometimes published in advance of the actual preparation and execution of the deposit agreement, particularly if there is fear that another committee with an ambition to represent the same securities is in process of formation. There is a distinct advantage in a committee being first in the field with its announcement. At times two opposing committees agree to cooperate.

While the first announcement may place a **time limit on the deposit of securities,** it is rare that a sufficient proportion of the securities is deposited within that time. The limit is, therefore, extended from time to time. Deposits will be accepted until some important step is to be taken by the committee, when it may announce that after a certain date no further deposits will be taken. However, it will usually reserve the right to permit later deposits upon special application, which is a wise provision in view of the protective attitude of courts toward

minority holders. The higher the percentage of securities deposited, the greater the influence the committee is likely to wield in reorganization negotiations.

Holders have a natural reluctance to surrender their securities, which must be overcome. In addition, certificates of deposit are generally quoted on the market below the price of the undeposited securities at least by the amount of the payment holders may be called upon to make to withdraw deposited securities.

PLEDGE OF DEPOSITED SECURITIES.—To defray expenses a protective committee may contract loans and for this purpose it may pledge deposited securities under the authority granted it by the deposit agreement. The committee may also use the deposited securities as a pledge to indemnify the bondholders' trustee for any expense, loss, or liability it may incur in taking action under the indenture at the request of the committee, which has the authority to make such request by reason of its being holder of the proportion of the bonds stipulated in the indenture.

CERTIFICATES OF DEPOSIT OF OPPOSING COMMITTEES.—When two opposing committees have been formed to represent the same class of securities, each may permit the deposit of the other's certificates of deposit in place of the actual securities. The certificates issued by committee A in exchange for the certificates of committee B deposited with it would then bear a notation stating that fact and also that committee A is empowered to withdraw the actual securities deposited with committee B upon payment of committee B's charges for account of the holder of the certificates of committee A.

EXPENSES OF THE COMMITTEE.—These expenses include the cost of publicity, etc., compensation received by the committee's counsel, its secretary, the depositary and its own members, unless these latter contribute their service gratis, as they not infrequently do. When the reorganization plan has been confirmed, the court may allow payment of part or all of the expenses by the debtor corporation. Depositing security holders are assessed their pro-rata share of the expenses if the court does not allow the debtor to pay them, or if they withdraw before reorganization.

PROTECTIVE COMMITTEES UNDER CHAPTER X.—The Bankruptcy Act bars a protective committee from soliciting acceptances, conditional or unconditional, of a plan of reorganization until after entry of an order approving the plan and the transmittal of this order to creditors and stockholders, except where the court gives specific authority for such solicitation. Section 211 of the Bankruptcy Act, as stated above, requires a committee representing more than twelve creditors or stockholders to file with the court a copy of the instrument under which it functions, and other pertinent data. Section 213 further provides that a protective committee can be heard or allowed to intervene in a proceeding under Chapter X only if it shall have satisfied the court that it has "complied with all applicable laws regulating the activities and personnel of such persons." This would require compliance with the Public Utility Holding Company Act or other statutes, where they are pertinent to the particular case.

Section 77 of the Bankruptcy Act provides that no committee or person may solicit deposit of securities of railroads during reorganization, or proxies to act for security owners, until such solicitation has been authorized by the Interstate Commerce Commission after a hearing. However, the law makes an exception for persons acting in their own interest, groups of not more than 25 bona fide holders of securities and mutual institutions acting together for their own interests. The Interstate Commerce Commission requires that applicants for authority to act for other security holders, as a protective committee or otherwise, must file a sworn statement providing information required by the Commission's rules and regulations.

Bankruptcy

BANKRUPTCY LAWS OF THE UNITED STATES.—The Constitution of the United States, in Article I, Section 8, Clause 4, provides that: "Congress shall have power to establish . . . uniform laws on the subject of bankruptcies throughout the United States." Under this power, Congress has enacted four successive bankruptcy laws: the Act of 1800, repealed in 1803; the Act of 1841, repealed in 1843; the Act of 1867, repealed in 1878; and the Act of 1898, amended principally in the years 1903, 1910, 1926, 1933, 1934, 1935, 1938, and 1946. The **bankruptcy laws in force** at present consist of (1) the Act of 1898, (2) its several amendments, (3) certain **General Orders** adopted by the Supreme Court of the United States, and (4) the equity rules prescribed by that court for the lower federal courts. The General Orders number 56 in all and were promulgated, in conformity with a provision of the Act, soon after its passage, in order to regulate the practice of the bankruptcy court, supplemented by such local rules as each court may see fit to adopt. In addition, the U. S. Supreme Court has prescribed **Official Forms,** amended in conformity with changes in the law, which debtors, creditors, other parties in interest, and the officers of the bankruptcy courts are to employ, with such adaptation as is found necessary, in taking various steps in the bankruptcy proceedings. There are also many **unofficial or supplementary forms** which law stationers supply, covering other contingencies in the proceedings.

PURPOSE OF BANKRUPTCY.—The main purpose of bankruptcy proper is to take over the assets of the insolvent debtor, reduce them to money, and to distribute the proceeds, after the satisfaction of secured and priority claims, among the general creditors in proportion to their respective claims as filed with and allowed by the bankruptcy court. Before the enactment of the bankruptcy law, except in states which had their own bankruptcy or insolvency laws, the common law rule prevailed that "the law favors the diligent creditor." Hence, creditors who first appeared on the scene with sheriffs armed with writs of attachment or executions had their claims satisfied in full, while subsequently appearing creditors found little if any of the debtor's assets left for the payment of their claims. Bankruptcy laws, including the federal, substitute equity for the common law, and their rule is equality, not diligence. The debtor's estate is seized by the bankruptcy court and creditors share in the assets pro rata.

A second purpose of the present bankruptcy law is to place an insolvent business under the control of the court for reorganization, so that liquidation may be avoided. In 1933 and 1934 the Act was amended to provide relief for insolvent debtors through reorganization. The amendments of 1938, known as the Chandler Act, thoroughly revised the whole bankruptcy law, as discussed above.

Another purpose of the present bankruptcy law is to **relieve unfortunate but honest debtors** of the unsatisfied portion of their debts, with certain exceptions, after they have surrendered all their assets, in order to afford them an opportunity to reinstate themselves in business if they can. They are also allowed certain exemptions, being permitted to retain property of a certain kind and value which is not subject to seizure by the bankruptcy courts. The discharge of the bankrupt, however, is viewed by courts as a distinctly secondary purpose of the Bankruptcy Law and not an essential characteristic.

FEDERAL BANKRUPTCY LAW AND STATE INSOLVENCY AND OTHER LAWS.—States are permitted to have bankruptcy or insolvency laws so long as there is no federal bankruptcy law. Prior to the enactment of the present federal law, many states had insolvency laws in force, some of which in their essential features were similar to the subsequently enacted federal statute. However, with the passage of the federal law the state statutes became suspended, being now valid and continuing in operation only to the extent that they are not in conflict with the federal law. No state court has power to interfere with the operation of the Bankruptcy Act and restrain a debtor from taking advantage of its provisions.

However, **assignments made by debtors** for the benefit of creditors and receiverships in state courts are only nullified when the debtors are adjudicated bankrupts in the federal courts. In the meantime, state courts are not disturbed in their custody of debtors' property without their consent. Moreover, the federal law takes cognizance of state laws relating to certain rights of the parties to the bankrupt proceedings, such as exemptions, priority of payment, dower rights, mortgages, etc. The federal bankruptcy courts also follow state courts in dealing with property rights regulated by state law, unless the provisions of the Bankruptcy Act require a different construction from the state court decisions.

COURTS OF BANKRUPTCY.—The judicial administration of the Bankruptcy Act is placed in the federal district courts "sitting in bankruptcy." When so sitting, they are courts of equity and not of law. However, they must administer the bankruptcy proceedings pending before them in accordance with the provisions of the Act and the General Orders of the U. S. Supreme Court, and not allow themselves the latitude of any broad and unlimited equity power. Being equitable in nature they can punish for contempt of court. Thus, for example, if a bankrupt conceals property belonging to his estate, the court can punish him summarily for contempt to force obedience to its orders. This is not held to be any violation of the constitutional prohibition against imprisonment for debt. In general, any intentional interference with the law on the part of the bankrupt or the creditors is punishable for contempt. In the exercise of its equitable powers, the bankruptcy

court can also issue injunctions restraining the commission of any acts which would hamper the proper administration of the bankruptcy proceedings.

A particular district court, sitting in bankruptcy, has the power to adjudicate the bankruptcy only of persons (including corporations) who have had their principal place of business or their domicile within the confines of the court's district for the preceding 6 months or the greater portion of this period. The principal place of business of a corporation is where its principal business is transacted, or where its assets are mainly located, and not necessarily where it is incorporated. If the debtor has neither place of business nor residence but has property in the United States, the court in whose district the property is located has jurisdiction.

The jurisdiction of a bankruptcy court is confined to its district. If it is desired, for example, to recover property belonging to the bankrupt's estate but located in another judicial district, or to examine persons in another district concerning the acts, conduct, and property of the bankrupt, ancillary proceedings must be instituted in the court of that district by petitioning it for the issuance of the proper order or subpoena.

COMMENCEMENT OF BANKRUPTCY PROCEEDINGS.—These proceedings are begun when a petition is filed with the court praying that the debtor be adjudged a bankrupt. The petition may be filed by the debtor himself, in which case it is known as a voluntary petition. Or it may be filed by one or more creditors against the debtor, in which case it is known as an involuntary petition. The petitions are made on the official forms prescribed by the U. S. Supreme Court.

VOLUNTARY BANKRUPTCY.—All persons, partnerships, and corporations, capable of contracting and who owe debts, except municipal, railroad, insurance, or banking corporations or building and loan associations, may make an application to the court for voluntary bankruptcy. The term "corporation" as used in the Bankruptcy Act includes "limited or other partnership associations organized under laws making the subscribed capital alone responsible for the debts of the association; joint stock companies, unincorporated companies, and associations and any business conducted by a trustee or trustees wherein the beneficial interest or ownership is evidenced by a certificate or other written instrument."

Separate official forms are prescribed for the voluntary petition of an individual, a partnership, and a corporation. In each the petitioner, after stating that his principal place of business or his residence has been in the judicial district for the greater part of 6 months immediately preceding the filing of the petition, and that he owes debts which he is unable to pay in full, expresses his willingness to surrender all his property except such as is exempt by state law, and his desire to obtain the benefit of the Bankruptcy Act.

Although the official form of voluntary petition provides for an allegation of insolvency (debts exceeding the assets), there is nothing in the law requiring the applicant to be insolvent.

FILING OF SCHEDULES.—With the filing of a voluntary petition, the debtor must submit schedules, on official forms, showing in detail the amount and kind of property, and its location, a list of the creditors with the addresses of their residences if known (if unknown, that fact must be stated), the amounts due each of them, the consideration thereof, and the special security held by creditors, if any. The schedules should also set forth the exempt property which the petitioner claims by right of state law. The statements of assets and liabilities should set forth the major items specifically and with such detail as to be capable of identification. Damage suits and creditors' claims of whatever nature, although apparently groundless, should also be stated at the maximum amount alleged to be due. Contingent liabilities should be included. Provision is also made for the listing of the books, papers, deeds, and writings relating to the bankrupt's business and estate, as the court takes possession of these in taking over the petitioner's assets.

The schedules are made out in triplicate on official forms, each copy signed by the petitioner and accompanied by an affidavit. One copy is for the court clerk, one for the referee, and one for the subsequently appointed trustee. The courts require reasonable accuracy and completeness in the preparation of all the papers used in proceedings in bankruptcy, since the efficient administration of the bankrupt's estate largely depends upon the accuracy of the information revealed by the schedules. A knowing omission or misstatement in the schedules may not only bar the petitioner from a discharge from his debts but may make him liable to criminal prosecution for false swearing.

In involuntary bankruptcies the debtor must file the schedules within five days after adjudication.

POWER OF CORPORATE DIRECTORS TO PETITION BANKRUPTCY.—Corporations, both business and nonprofit, with the exceptions noted above, may be adjudged voluntary bankrupts. Whether directors of a corporation, without authority from the stockholders, have the power to file a petition in voluntary bankruptcy depends upon the laws of the state in which the corporation is organized and its charter provisions. According to the **trend of authority,** in the absence of charter restrictions, the directors may on their own responsibility petition for voluntary bankruptcy. (Gilbert's Collier on Bankruptcy.) On the other hand, an **officer of a corporation** has no authority to file such a petition unless it has been conferred upon him by the directors. It has been held that state statutes which prohibit the sale, assignment, or transfer of the property and franchise of a corporation without the consent of a certain proportion of the stockholders do not prohibit the filing of a voluntary petition by directors. [Bell v. Blessing (C. C. A. 9th Cir.), 35 Am. B. R. 672, 225 Fed. 750.]

INVOLUNTARY BANKRUPTCY.—Creditors may file a petition in bankruptcy against any person, partnership, or corporation owing debts of $1,000 or over, except the following:

1. Wage earners.
2. Farmers or persons engaged chiefly in tilling the soil.
3. Municipal, railroad, insurance, banking corporations, and building and loan associations.

When the number of creditors totals 12 or more, the petition may be filed by three or more creditors having provable claims or claims aggregating $500 or more above any specific security they may hold. When the total number of creditors is less than 12, one creditor having a provable claim, or claims, amounting to $500 or more above any specific security he holds, may file the petition. The petition is prepared on an official form and in duplicate—one copy for the court's files and the other for subsequent service upon the alleged bankrupt. No schedules of the bankrupt's assets and liabilities accompany the petition as these will have to be filed by the debtor himself should he be adjudged a bankrupt.

In the **creditor's petition,** it is stated that the debtor has had his principal place of business at the named address, which is within the court's district, for the greater part of the previous 6 months and that he owes debts of $1,000 and that the petitioners have provable claims against the debtor, in excess of any security, of $500, the exact nature of which is specified. It is also alleged that the debtor is insolvent and that he has committed within the prescribed period of time one of the acts of bankruptcy necessary to make him a bankrupt, and the creditors pray that the service of the petition with a subpoena be made upon the debtor in order that he may be adjudged a bankrupt.

ACTS OF BANKRUPTCY.—The Bankruptcy Act is not intended to cover all cases of insolvency to the exclusion of judicial proceedings in state courts. The statute gives bankruptcy courts jurisdiction only in certain instances—those in which within 4 months before the filing of the bankruptcy petition one of the six specified "acts of bankruptcy" has been committed. These acts, however, apply only to involuntary bankruptcies. A voluntary petition in bankruptcy may be filed by any one regardless of whether or not he has committed an act of bankruptcy. The filing of the voluntary petition is in itself regarded as an act of bankruptcy.

In essence, the acts of bankruptcy consist of any one of the following:

1. Fraud on the part of the alleged bankrupt.
2. Giving an unfair advantage to one creditor over another either by way of preferential transfer or by permitting the seizure of assets through legal proceedings.
3. Attempting to keep the administration of the insolvent estate out of the bankruptcy court, as in the case of receivership and the general assignment for the benefit of creditors.
4. The business admits its insolvency and is willing to be liquidated.

The six acts of bankruptcy are as follows:

1. The debtor, within the stipulated four months, has conveyed transferred, concealed, removed, or permitted to be concealed or removed, any part of his property with intent to hinder, delay, or defraud his creditors.

The intent to defraud creditors by disposing of property is the essence of this act of bankruptcy. The statute does not prevent an insolvent person from disposing of his property provided there is no intent on his part to hinder, delay, or defraud the creditors. The insolvency of the debtor is not necessary to be shown in connection with this act, and it is a complete defense to a petition alleging the

first act of bankruptcy to show that the alleged bankrupt was not insolvent at the time of the filing of the petition. (Gilbert's Collier on Bankruptcy.) The term "transfer" as used here and elsewhere in the statute is defined as the "sale and every other and different mode of disposing of or parting with property absolutely or conditionally, as payment, pledge, mortgage, gift or security."

The commission of this act of bankruptcy must be shown with reasonable certainty and clearness in the petition for bankruptcy. The petition must describe the property alleged to have been transferred, to whom and when the transfer was made, and that it was made within the preceding four months. An **actual transfer of title** must be shown. A lease of property, for example, for the purpose of defrauding creditors would not constitute this act of bankruptcy. A corporation which has committed this act of bankruptcy may be adjudged a bankrupt even if by so doing it acted ultra vires.

2. The debtor has transferred, while insolvent, any portion of his property to one or more of his creditors with intent to prefer such creditor or creditors over his other creditors.

Preference is the essence of this act. The preference must be intentional on the part of the debtor, but the interest of the preferred creditor is immaterial, as it is not necessary to show that he knew that the payment was preferential. If a bankrupt knows he is insolvent, he must be presumed to know that a transfer made to one creditor to the exclusion of others will result in a preference. In view of the definition of "transfer" in the statute the preference may consist in giving a mortgage or a pledge of property, for example, to a pre-existing creditor. However, if the mortgage is given in the ordinary course of business, in order to obtain a new loan, no preference is intended, and no act of bankruptcy is committed.

3. The debtor has, while insolvent, suffered or permitted any creditor to obtain a lien upon any of his property through legal proceedings and not having vacated or discharged such lien within 30 days from the date thereof or at least 5 days before the date set for any sale or other disposition of such property.

This is known as the passive act of bankruptcy, since the debtor commits no overt act but merely fails, while insolvent, to prevent a creditor from obtaining an advantage over others through legal process. The intention of the bankrupt is not material. If the element of intent is also present he has also extended a preference under the second act of bankruptcy. This third act of bankruptcy is mainly committed by those who permit judgments and liens to be obtained against them. The essence of the act consists in failure or mere inability to have such preference by legal process discharged or vacated 5 days before the day set for the sale of the property. An attachment in itself is not enough to constitute this act of bankruptcy unless it is followed by a judgment permitting the sale of the property; if a lien is procured by a creditor in legal proceedings but no steps are taken to bring about a "sale or other disposition" of property, the lien later might become a preference. To remedy this the Act provides that if any creditor is permitted to obtain any levy, attachment, judgment, or other lien and has not vacated or discharged it within the following 30 days, he has committed an act of bankruptcy.

4. Debtor has made a general assignment for the benefit of creditors.

Under this act of bankruptcy, an assignment for the benefit of creditors, even though without preferences, is an act of bankruptcy regardless of the debtor's intent or his solvency or insolvency. Assignments may be made under state laws, but they permit creditors to throw debtors into bankruptcy if the petitions are filed in the following 4 months.

5. While insolvent or unable to pay his debts as they mature, the debtor has procured, permitted, or suffered voluntarily or involuntarily the appointment of a receiver or trustee to take charge of his property.

Insolvency is a requisite element of this act of bankruptcy it a receiver, statutory or in equity, is appointed to take over the debtor's property. It must be the actual cause of the appointment. To avoid bankruptcy, corporations, when seeking friendly or consent receivership, make it a practice to claim solvency in the application. In the hearing on a bankruptcy petition the records of the court appointing the receiver may be used to prove solvency or insolvency.

An agreement to wind up the affairs of a corporation when insolvent by assigning all its property to its directors as trustees in liquidation is an act of bankruptcy.

6. Debtor has admitted in writing his inability to pay his indebtedness and his willingness to be adjudged a bankrupt on that ground.

This act of bankruptcy is tantamount to voluntary bankruptcy, and natural persons will usually prefer the more direct method of the latter. The act was of greater importance in relation to business corporations when they did not enjoy their present unrestricted right to apply for voluntary bankruptcy. Power of directors to declare the corporation's inability to pay its debts and willingness to be adjudged a bankrupt is the same as in applications for voluntary bankruptcy.

ADJUDICATION OF BANKRUPT.—A **voluntary petition** for bankruptcy is adjudicated immediately. No one is permitted to contest such adjudication except in partnership proceedings that partake of the nature of both voluntary and involuntary bankruptcy. If the petition is drawn up in accordance with the statutory requirements and makes out a prima facie case, the judge must make the adjudication.

In involuntary proceedings, the defendant is served with a subpoena and a copy of the petition and if personal service cannot be made, notice is given by publication once a week for two consecutive weeks. The hearing on the petition is held before the judge, but, since the proceedings are in equity, there is no jury unless the judge decides to call one to act purely in an advisory capacity, or unless the debtor takes advantage of his right under the law of filing an application for a jury trial to decide whether or not he was insolvent at the time of the petition and whether or not he committed an act of bankruptcy in the 4 months immediately preceding the date of the petition. Where no jury is demanded, the judge may refer the hearings to a master in chancery, who may be a referee, to take and hear the evidence and report the findings to the judge.

After the judge has heard the evidence as submitted by the bankrupt and other parties in interest, including creditors, for or against

the debtor, he either dismisses the case for want of sufficient evidence that the debtor is insolvent and has committed an act of bankruptcy within the stipulated time, or he adjudicates him a bankrupt. With this latter decision the court takes immediate charge of the debtor's property and the machinery is started to wind up his estate. The case is referred to a referee who supervises the administration of the estate with a view to its liquidation and the distribution of the proceeds among the creditors.

If the alleged bankrupt fails to respond to the subpoena he is adjudicated a bankrupt by default, if the evidence furnished by the petition is sufficient and objections on the part of other creditors, if any, are overruled.

PROVISIONAL REMEDIES FOR SAFEGUARD OF DEBTOR'S PROPERTY.—After a petition is filed in involuntary bankruptcy, or after the adjudication of the bankrupt and before the selection of a trustee to take active charge of the bankrupt's estate, several remedies are available to creditors to prevent the depletion of the estate or to prevent any action on the part of the bankrupt that would tend to defeat the proceedings. These are as follows:

1. **Provisional seizure of the property by a species of attachment.** Upon proof by affidavit that a debtor against whom an involuntary petition is pending has committed an act of bankruptcy and that he is neglecting his property, so that it is deteriorating in value, the judge may issue a warrant to a marshal to seize and hold the property subject to further orders. The petitioners for the warrant must file a bond to indemnify the debtor for the costs and the damages caused by the seizure of his property in the event that the petition in bankruptcy pending against him is dismissed. The property may, however, be released if the debtor gives bond that he will turn it over or pay its value to the trustee, should he be adjudged a bankrupt.

2. **Issuance of injunction.** An injunction may be issued to restrain the debtor, or a third party in possession of property alleged to belong to the debtor's estate, from disposing of the property until proper action can be taken.

3 **Arrest, detention and extradition of bankrupt.** Upon satisfactory proof by the affidavits of two persons that the alleged bankrupt is about to leave the judicial district in order to avoid examination, the court may issue a warrant to a marshal directing him to bring the debtor forthwith before the court for examination. If, upon hearing of the evidence, the allegations are found to be true, the court may order the marshal to keep the debtor in custody for not over 10 days, but not, however, to imprison him, until he has been examined or given bail to appear for examination. If the debtor happens to be in another district when the warrant for his apprehension is issued, he may be extradited in the same manner as a person under indictment.

4. **Suits by creditors.** Creditors may file suits for the recovery of property fraudulently transferred or concealed by the alleged bankrupt. They will be reimbursed for the costs if he is adjudicated a bankrupt and the property is recovered. In this they merely anticipate the action which would subsequently be taken by trustee after his appointment.

5. **Appointment of a receiver.** This is considered below.

RECEIVER IN BANKRUPTCY.—The function and duties of the receiver in bankruptcy are similar to those of the receiver in equity. Prior to the adjudication of the bankrupt and the subsequent selection of a trustee, the bankrupt remains in undisturbed possession of his property. In a proper case, however, at any time between the filing of the bankruptcy petition and the selection of a trustee and his assumption of his duties, upon the petition of any creditors having provable claims or the debtor himself, the court may take over actual possession of the debtor's estate through the appointment of a receiver or by a direction to a marshal. The only ground for the appointment of a receiver in bankruptcy is that it is absolutely necessary for the preservation of the estate. Title to the property, however, remains in the bankrupt until the adjudication and selection of a trustee. The petitioners upon whose prayer the receiver is appointed must file satisfactory bond to indemnify the alleged bankrupt against any damage caused him by the seizure of his property in case he is not adjudged a bankrupt.

Notwithstanding the clear intent of the law, the practice has nevertheless grown up in some judicial districts of appointing a receiver immediately after each adjudication to serve until a trustee is elected. The purpose of this is to place the bankrupt's property in the custody of the law not merely in theory but also in fact. In other districts no receiver is appointed, but the bankrupt's property is locked up and the keys delivered to the referee. In ordinary practice the receiver is frequently continued as trustee.

POWERS OF RECEIVER.—The receiver's function is to preserve and not to administer the debtor's estate, as the latter function is subsequently performed by the trustee in case of adjudication. The receiver, therefore, merely takes custody of the property and not title to it. He may, however, sell perishable assets and may, when authorized by the court, continue operating the business for a limited period if that will tend to preserve the value of the property. He may be sued in state courts for acts done while conducting the business. The weight of authority is against his right to sue to recover property, which duty is later performed by the trustee.

The exact powers of the receiver are defined in the order of the court (judge or referee) appointing him. Upon his assumption of office, his first duty is to make an **inventory of the assets** and when authorized by the court he may borrow money, issuing receiver's certificates therefor. As the court's jurisdiction over the debtor's estate does not extend beyond the limits of its district, ancillary receivers must be appointed in other districts to enter upon the custody of any property found there. At the first meeting of the creditors after the adjudication of the bankrupt, the receiver submits a report and turns over the property to the trustee.

In the absence of the appointment of a receiver, it is the duty of the bankrupt to see that his property is preserved until the appointment of a trustee.

REFEREE IN BANKRUPTCY.—The referee is a judicial officer of the bankruptcy court, to whom bankruptcy cases are usually referred after adjudication, and who sits in them practically as a judge, with certain limitations. He is appointed for a term of 6 years, and as

his appointment may be renewed after the expiration of each term, his tenure of office may in that manner be prolonged indefinitely. Referees are appointed by the concurrence of judges of the Court of Bankruptcy or by the senior judge of the court. Enough referees are appointed to perform the duties of a referee in each area of the court. A referee may function in more than one judicial district but within one circuit. His jurisdiction, however, is coextensive with that of the court or courts whose judges participated in appointing him.

The statute requires certain general **qualifications of the referees** appointed. They must be residents of or have their offices in the territorial districts for which they are appointed, and must be members in good standing at the bar of one of the district courts of the United States. They cannot bear any close relationship, either by blood or marriage, to the judges of the judicial district, and cannot hold any other office of profit under the laws of the United States and of any state, with certain exceptions. They must also file a bond for an amount fixed by the court but not to exceed $5,000. Disqualifications not infrequently occur in individual cases, the referee not being able to serve because of his interest in the case, direct or indirect. He cannot practice as attorney or counselor at law in any bankruptcy proceedings, and cannot purchase directly or indirectly any property of a bankrupt estate. He takes the same oath of office as that prescribed for judges of the United States.

JURISDICTION OF REFEREES.—Referees are invested with wide jurisdiction, subject always to a review by the judge. They may perform such of the duties as are conferred on the courts by the Act, except as specifically restricted. Among their more important powers are to make adjudications or dismiss petitions; administer oaths and examine persons as witnesses and require the production of documents in proceedings before them; in the absence of the judge or his inability to act, exercise his powers for the taking possession and releasing of the property of the bankrupt; and grant, revoke, or deny discharges; confirm, or refuse to confirm, arrangements or wage earners' plans, or set aside the confirmations and reinstate the cases. The more important powers from which they are excluded are as follows:

1. Applications for injunctions to stay a court or officer of the United States or of a state are heard and decided only by the judge.
2. Those in contempt for disobeying orders of the referee can be committed only by the judge, upon receiving the referee's certification of the facts and after hearing the evidence on the act or acts complained of.

SPECIAL DUTIES OF THE REFEREE.—The court's order referring a case to a referee names a day on which the debtor is to present himself before the referee. The referee's jurisdiction in the case, however, begins from the time of the judge's order of reference. From that day the bankrupt is subject to his orders in all matters relating to his bankruptcy, and the referee may protect him against arrest in civil actions until final adjudication on his application for a discharge.

The referee's first act is to see that the bankrupt files his schedule of assets and list of creditors and that they are drawn up properly. If the **bankrupt has absconded,** subpoenas may be issued by the ref-

eree to all persons who are likely to have some knowledge of the bankrupt's business affairs, and schedules may be prepared from the evidence produced by these witnesses and from the bankrupt's books.

Other duties which the law specifically prescribes for the referee include the following:

1. Give notices to creditors of the first and subsequent meetings or of other actions in the proceedings for which they are entitled to previous notice.
2. Furnish any information regarding the bankrupt estate requested by parties in interest.
3. Transmit to the clerks such papers as may be on file before them whenever the same are needed in any proceedings in courts and secure the return of such papers after they have been used.
4. Declare dividends and cause to be prepared dividend sheets showing the dividends declared and to whom payable.
5. Keep a record of the case and the filed documents, and at the conclusion of the case transmit it to the clerk of the court, where it remains open to inspection. Such bankruptcy records are especially valuable to real estate title abstractors in tracing changes of title.

COMPENSATION OF REFEREE.—Full-time referees receive as full compensation for their services not more than $10,000 and part-time referees not more than $5,000 per annum. Referees are paid out of the referees' salary fund which is raised by fees collected from bankruptcy cases and paid into the United States Treasury. Fees thus raised are fixed by the conference of senior circuit judges so that the funds collected will, as near as may be, fit the amounts paid out as salaries and expense.

FIRST MEETING OF CREDITORS.—From the schedules of assets and liabilities filed by the bankrupt the referee learns the names and addresses of the creditors. Not less than 10 and not more than 30 days after adjudication he calls the first meeting of the creditors. The **place of the meeting** is the county seat of the county in which the bankrupt has his place of business or his residence. If the bankrupt has neither place of business nor domicile in the United States, the referee fixes a place for the meeting most convenient for all parties concerned.

The referee presides at the meeting, and the first business to be transacted is the proving of claims of creditors and their allowance by the referee. When the status of the creditors is thus established, they proceed to the examination of the bankrupt and the election of one or three trustees to take title and enter upon the active administration of the bankrupt estate. The first meeting may be adjourned from day to day until it has completed its business. At the first meeting of creditors they may also elect a creditors' committee.

Trustees are elected by a majority vote in number and amount of claims of all creditors whose claims have been allowed and who are present. Certain creditors such as relatives, directors, or stockholders of a corporation which is bankrupt, and the bankrupt's spouse are not allowed to vote for a trustee.

In computing the number of creditors voting or present at creditors' meetings, claims of $50 or less shall not be counted in computing the number but shall be counted in computing the amount.

SUBSEQUENT CREDITORS' MEETINGS.—Other meetings of creditors after the first may be held at any time or place as may be agreed upon in writing by all the creditors whose claims have been allowed by the referee. The referee is also compelled to call a meeting of creditors whenever one-fourth or more in number of those who have proved their claims file a written request for it. If the request calls for a particular place of meeting signed by a majority of such creditors whose claims represent the greater part of the total, the court must call the meeting at such place within 30 days after the filing of such request. It is customary, however, for the referee to keep adjourning the first meeting in order to avoid calling special meetings.

VOTING AT CREDITORS' MEETINGS.—Bankruptcy proceedings are conducted to a considerable extent by a vote of creditors. In actual practice, however, creditors vote only in the election of the trustee and the fixing of the amount of his bond as a matter of right. The referee rules on other questions though he will consult with creditors and ask for their vote.

The creditors pass on all matters submitted to them by a **majority vote in both number and the amount** of the claims of all those present. However, only claims that have been allowed by the referee are entitled to vote. Those who have several assigned claims have only one vote. As bankruptcy proceedings are conducted solely in the interest of the general creditors, those having **secured or priority claims** cannot vote except for the amount by which their claims exceed the probable value of the security or priority as determined by the referee upon application. They may vote, however, if they surrender their security or priority. As to any other matter than participation in voting, any creditor having a provable claim, whether he has proved it or not, is entitled to be heard, as, for example, in the examination of the bankrupt. Creditors need not be present at meetings in person, but may be represented by proxy or attorney.

No given quorum is required at creditors' meetings.

CREDITORS' COMMITTEES.—Creditors may, at their first meeting, appoint a committee of not less than three creditors, which committee may consult and advise with and make recommendations to the trustee in the performance of his duties. Such committee is chosen by a majority computed as in the case of the election of a trustee. It has no power to control the administration of the estate, but has the right to be heard by the court.

PROVING OF CLAIMS.—Proof of claim is a technical term used in bankruptcy with reference to the formal filing with the referee, by each creditor, of a sworn statement setting forth his claim. The proof must be drawn up as provided in the Bankruptcy Act and on forms prescribed by the U. S. Supreme Court. It must set forth the consideration given for the debt and what security, if any, is held against the debt. Secured and priority claims must be proved on separate forms. If a creditor is a **partnership,** the proof of claim must bear the affidavit of a member of the partnership. If the creditor is a **corporation,** the proof of claim must be sworn by the treasurer; thus, "A. R. Taylor, Treasurer of the National Company." If a **claim was assigned** before the adjudication of the bankrupt, the assignee files the proof of claim

in his own name. If the assignment was made after adjudication but before the claim was proved, the claimant's proof must be supported by the affidavit of the owner of the claim at the time of adjudication. When a proved claim is assigned, the referee should be given notice, and he will then notify the one who filed the proof, giving him 10 days in which to deny the assignment of the claim. An agent may prove a debt for a sufficient reason, such as the illness of the principal.

Whenever a **claim is based upon an instrument in writing,** as a note or a bond, it must be filed with the proof of claim until the claim is formally allowed by the referee, whereupon it may be withdrawn and a copy substituted in its place. It is customary to attach the original and a copy to the proof of claim and request the referee to return the original. If an instrument draws interest, the interest is to be computed to the date of the filing of the bankruptcy petition. In case of **lost or destroyed instruments,** the facts concerning its loss and destruction should also be set forth in the proof of the debt.

Indorsers, guarantors, and sureties may prove, in the name of creditors, any claim on which they are secondarily liable and which the creditors have failed to prove. If they discharge such claims, they succeed to the rights of the creditors.

The **trustee for bonds** issued by a corporation in bankruptcy may file a proof of claim for the entire issue, but in view of conflicting legal decisions, this is not regarded sufficient, and the individual bondholders must also file their separate claims, accompanied by the bond certificates. Where there is a protective committee to represent the bondholders, its secretary sends forms of proofs of claims to those who have deposited their bonds with the committee and attends to the details of filing the proofs in their behalf. The referee may issue informal receipts for the bonds thus filed—to the protective committee for the bonds deposited with it and filed with the referee.

Many of the claims will be proved at the first meeting of creditors, in order that they may be allowed by the referee and entitle their owners to participate in the voting. However, creditors have until 6 months from the date first fixed for the first meeting of creditors in which to file their claims.

It is a crime punishable by imprisonment for a period not exceeding 5 years to present a false proof of claim against the estate of a bankrupt.

WHAT DEBTS MAY BE PROVED.—The question of whether or not a debt is provable, as the term is used in bankruptcy, turns upon its status at the time of the filing of the bankruptcy petition. Claims not owing at that time are not provable. But in order that the debt may be owing at the time of the bankruptcy petition it is not necessary that it should be due then nor that damages be liquidated.

Debts which may be proved against the bankrupt estate are:

1. Fixed liabilities, as evidenced by a judgment or an instrument in writing, absolutely owing at the time of the filing of the bankruptcy petition, whether then payable or not, with any interest thereon which would have been recoverable at that date or with a rebate of interest upon such as were not then payable and did not bear interest.
2. Debts due as costs taxable against an involuntary bankrupt who was at the time of the filing of the petition against him plaintiff

in a cause of action which would pass to the trustee and which the trustee declines to prosecute after notice.

3. Debts founded upon a claim for taxable costs incurred in good faith by a creditor before the filing of the petition in bankruptcy in an action to recover a provable debt.
4. Debts founded on open accounts, or on contracts expressed or implied.
5. Provable debts reduced to judgments after filing of the petition and before the consideration of the bankrupt's application for a discharge, less costs incurred and interest accrued after the filing of the petition and up to the time of the entry of such judgment.
6. Debts founded upon an award of an industrial accident commission.
7. Amount of any damages, as evidenced by a judgment in an action for negligence instituted against bankrupt before filing of the petition.
8. Contingent debts and contingent contractual liabilities.
9. Claims for damages respecting executory contracts, including future rents. Claim of landlord for damages is limited to not more than one year's rent without acceleration for the year next succeeding the date of the surrender of the premises or the date of reentry of the landlord, whichever first occurs, plus an amount equal to the unpaid rent accrued, without acceleration, up to such date.

Unliquidated claims against the bankrupt may, pursuant to application to the court, be liquidated in such manner as it shall direct, and may thereafter be proved and allowed against his estate.

The provability of claims is not dependent upon their validity, as that is a matter which the referee passes on in allowing claims after they are proved. It is necessary to distinguish proved claims as the term is applied in bankruptcy from claims subsequently allowed, as the owners of these two classes of claims have a different status. Any creditor with a provable claim may participate in the examination of the bankrupt, but only a creditor with an allowed claim may vote in creditors' meetings.

ALLOWED CLAIMS.—After claims are proved, that is, filed in proper form as explained above, they are either allowed or rejected. The difference between proving and allowing is that between evidence and judgment. All proved debts must be allowed by the court, usually the referee, unless objection is made to their allowance by some party in interest. The referee may, however, upon his own motion postpone allowance of any proved claim for good cause and not immediately enter an order allowing it. Before the election of the trustee, either the bankrupt or any creditor may object to a claim, or if already allowed, petition for its re-examination, provided the estate has not been wound up. After the election of the trustee, all objections and petitions for re-examination are made by the trustee or in his name, and he may use his own judgment in the matter. Upon his refusal when urged to take action, however, a creditor or the bankrupt may file his objections or petitions for examinations; or the court may compel the trustee to take action.

It is only the owners of allowed claims who may participate in all the proceedings of creditors' meetings and share in the dividends declared from the bankrupt estate. **Secured and priority claims,** while they must be proved, are not allowable debts except for such sums as the referee decides are owing on them over and above the value of the

security or the priority. Secured claims in this connection only include debts secured by property belonging to the bankrupt estate. Hence, a note bearing an accommodation endorsement, or a debt secured by property other than that of the bankrupt, is an allowable claim.

DUTIES OF BANKRUPT.—In addition to submitting schedules of his assets and liabilities, the law imposes certain other duties upon the bankrupt:

1. To attend the first meeting of his creditors if directed by the court to do so, and also the hearing upon his application for a discharge from his debts and at such other times as the court shall order.
2. To comply with all lawful orders of the court, which is usually the referee.
3. To examine the correctness of all proofs of claims filed against his estate. As a rule, the bankrupt sits by as the claims are called off at the first meeting of creditors and informs the referee whether they are correct or not.
4. To execute to the trustee, when appointed, transfers of all his property in foreign countries.
5. To execute and deliver such papers as shall be ordered by the court. If, for example, he owns a seat on a stock exchange, he must execute the necessary papers to enable the trustee to sell it.
6. To inform the trustee immediately of any attempt on the part of his creditors, or other persons, to evade the provisions of the Bankruptcy Law, should any such attempt come to his knowledge.
7. In case of any person having to his knowledge proved a false claim against his estate, to disclose that fact immediately to the trustee.
8. Prepare, make oath to, and file in court within 5 days after adjudication, if an involuntary bankrupt, and with his petition, if a voluntary bankrupt, a schedule of his property and a list of his creditors. The schedule must show both in detail.
9. File in triplicate with the court, at least 5 days prior to the first meeting of creditors, a statement of his affairs in such form as may be prescribed by the Supreme Court.
10. When present at the first meeting of creditors and at such other times as the court may order, submit to an examination concerning the conduct of his business, the cause of his bankruptcy, his dealings with his creditors and other persons, the amount, kind, and whereabouts of his property, and, in addition, all matters which may affect the administration and settlement of his estate. No testimony given by the bankrupt may be offered in evidence against him in any criminal proceedings. Such proceedings, however, may be instituted against him as the result of what is disclosed by the examination into his conduct of the business, but other evidence must be produced in the prosecution of the trial. Evidence taken in the bankrupt's examination may, however, be used against him in the hearing upon his application for a discharge or in other hearings connected with the bankruptcy proceedings.

EXAMINATION OF THE BANKRUPT.—The bankrupt may be required to appear before the court, or before the judge of any state court, to be examined concerning the bankrupt's acts, conduct, or property. Any designated person, including the bankrupt's spouse, despite any state law to the contrary, may also be examined. It is mandatory upon the trustee to examine the bankrupt unless he already has been fully examined by the referee, receiver, or creditors. It is mandatory, too, for the judge or referee, whichever presides at the first

meeting of creditors, to examine the bankrupt, and he may permit the creditors to examine him.

Ample opportunity is given for the examination of a dishonest bankrupt and these examinations should result in the disclosure of his past illegal actions, if any have occurred.

CONCEALMENT OF PROPERTY AND RECORDS.—It is a crime punishable by imprisonment for a period not exceeding 5 years, or fine of not to exceed $5,000, or both, knowingly and fraudulently to conceal from trustee, receiver, marshal, or other court officer charged with the control and custody of the bankrupt's property, any property belonging to the estate; or to receive any material amount of property from the bankrupt after the filing of the bankruptcy petition with the intent to defeat the Act; or to conceal, falsify, mutilate, or destroy any books, documents, or records relating to the affairs of the bankrupt.

Whenever any trustee, referee, or receiver has grounds for believing that any offense under the Bankruptcy Act has been committed, it is his duty under the law to report the facts to the United States attorney of the district for such action as he may deem necessary.

TRUSTEE IN BANKRUPTCY.—The trustee is the officer of the court who upon election takes charge of the administration and settlement of the bankrupt estate. He is elected, subject to the judge's or referee's approval, at the first meeting of creditors. Before assuming office he must enter into a bond for the faithful performance of his duties, the amount of which is also fixed by a vote of the owners of allowed debts. Immediately upon thus qualifying, he takes title by operation of law to all the bankrupt's property, including his books, documents, papers, etc., in this country. His title, however, relates back to the date of the adjudication of the bankrupt.

The number of trustees may be either one or three, as determined by the creditors. If three are appointed, the concurrence of two of them is requisite for action.

The law contemplates that the bankrupt estate will be settled with all possible speed in order to conserve the assets for the benefit of the general creditors. It is, therefore, the duty of the trustee to promptly take possession of all assets, bringing suit against so-called "adverse claimants," or third parties in possession of assets which in the judgment of the trustee belong to the bankrupt, recovering property from those who were given unlawful preferences or to whom unlawful transfers were made by the bankrupt, defending the estate generally against void or voidable liens and priorities of payments. The trustee represents the interests of the general or unsecured creditors and the bankrupt, for whose benefit primarily the Bankruptcy Law has been enacted. With the approval of the referee he may compromise any controversy arising out of the administration of the estate on such terms as he may deem for the best interests of the estate.

Property in the hands of the trustee should be liquidated at the earliest possible moment under the supervision of the court. The trustee himself may act as **salesman or auctioneer**, and for that reason it is best to appoint as trustee a business man with selling ability, preferably one who has had experience in the same line of business as the bankrupt and one residing or having his business office in the same

district. The services of **special masters or auctioneers** may be used in the liquidation of the estate, though they add greatly to the expense of administration. In prosecuting his work, the trustee is expected to use his best judgment, though he will find it profitable to consult with creditors and enlist their interest in securing bids for property he is trying to sell. He must **deposit all money** coming into his possession in one of the designated depositaries for the receipt of bankruptcy court funds. To prosecute or defend suits he may engage attorneys, and he may incur other expenses which he pays by check on the depositary countersigned by the referee.

TRUSTEE'S ACCOUNTS.—The trustee must keep **regular accounts** showing the amounts received and the amounts disbursed, and must file with the referee periodically a **written report of the condition of the estate**—the first within the first month after his appointment and one every 2 months thereafter. Within 10 days after his qualification, he must file a certified copy of the court decree in the office where conveyances of real estate are recorded, in every county where the bankrupt owns real estate not exempt from execution. Such requirement is intended to aid title abstractors in following the chain of real estate conveyances, as they can then look up the records of the bankruptcy case in the courthouse.

The trustee's accounts and papers are open to inspection by officers and all proper parties, including the creditors, who are entitled to receive from him other pertinent information. He must pay **dividends to the creditors** within 10 days after they are declared by the referee. Fifteen days before the date fixed for the final meeting of the creditors, after the bankrupt estate has been wound up and settled, he is required to file with the referee a **final report and account,** and at the final meeting of the creditors, he must submit a detailed statement of the estate. When his final report is approved by the referee, he is discharged.

COMPENSATION OF TRUSTEE.—The trustee's compensation consists of minor fees and such commissions as the referee may allow on all the monies he disburses or turns over to any persons or corporations, but not to exceed 6% on the first $500, 4% on the next $1,000, 2% on the next $8,500, and 1% on any additional payments. If there are three trustees, the referee apportions the fees and commissions between them according to the services they have actually rendered, all three receiving in the aggregate only what one would have received if he had been the sole appointee.

TRUSTEE'S TITLE TO PROPERTY.—The trustee takes title to the bankrupt's property for the benefit of the creditors as of the date of the filing of the petition in bankruptcy. However, the property he takes over is only that which the bankrupt was possessed of at the time of the filing of bankruptcy petition, including the subsequent profits and earnings of such property, and including later substitutions through sale, purchase, or exchange. The exception is the property for which the bankrupt claims exemption under state law. Title to all property acquired independently after the filing of the petition, as that obtained on credit or for the bankrupt's labor or services, or by gift or bequest, does not vest in the trustee. Such property belongs to the

bankrupt, clear of the claims of all creditors save those who become such after the commencement of the bankruptcy proceedings or those who for statutory reasons are not affected by the bankrupt's discharge. However, if subsequently any composition arranged with the creditors is set aside or the bankrupt's discharge is revoked, the trustee is vested with title to all property of the bankrupt as of the date of the setting aside of the composition or the revoking of the discharge.

Such property as the trustee takes title to, if located in this country, he takes over by operation of law and no deed, bill of sale, or other form of conveyance is necessary. However, if property is situated in a foreign country, the trustee can only acquire title by proper conveyance, and the bankrupt may be compelled to make such transfer to the trustee.

The trustee takes the bankrupt's property subject to all valid claims, liens, and equities. He has no better title than the bankrupt had at the time of the filing of the petition, except as the status of the title was modified by any fraud of the bankrupt. In cases of fraud or transfers, encumbrances, or holding of property void as to creditors, the trustee succeeds to the rights, under state law, of judgment creditors holding an execution duly returned unsatisfied. Legal liens and preferences obtained within 4 months preceding the bankruptcy petition are void.

TRANSFER OF POWERS AND DOCUMENTS TO TRUSTEE.—The trustee, in addition to taking title to property which the bankrupt is capable of transferring or that can be seized by judicial process, also takes over certain powers, rights, and documents which are not always regarded as strictly transferable or leviable:

1. Documents relating to bankrupt's property.
2. Powers which he might have exercised for his own benefit, but not those which he might have exercised for some other person.
3. Rights of action arising upon contracts or from the unlawful taking or detention of, or injury to, his property.

If the bankrupt is carrying an **insurance policy** payable to himself, his estate, or personal representatives, which has a cash surrender value, he is permitted to hold the policy free of all claims of creditors if he pays the trustee a sum equal to this value, or gives security for its payment.

BANKRUPT'S EXEMPTIONS.—In every state there are statutes freeing certain property of debtors from seizure, by judicial process, for the benefit of creditors. These exemption provisions specify the type of property, their value, and who may claim the exemptions. The **personal property exemption** may include household articles, tools, and clothing of a certain value. The **homestead** may also be exempt up to a certain amount, as well as the wages of laborers, mechanics, and employees.

The bankrupt, when preparing his schedules, may make claim to exemption under the law of the state in which he has resided for the 6 months or the greater portion of the 6 months immediately preceding the bankruptcy petition. If he files his claim, the trustee does not take title to the exempt property, and one of the latter's first duties on entering upon office is to set aside the property—both the kind and

amount claimed by the bankrupt as exempt—and make a report to the referee. A hearing is held on this report and both bankrupt and creditors may take exception to it. By agreement with the bankrupt, **exempt property may be sold** along with other property as an entirety, and the bankrupt be allowed his exemptions out of the proceeds. Liens obtained by legal proceedings within 4 months preceding the bankruptcy petition upon property later claimed by the bankrupt as exempt are not annulled by the bankruptcy proceedings.

A debtor may **waive his right to exemptions** by specific surrender of them or by failure to claim them when filing his schedules. In the former case, the usual method is a **waiver-note** running to a particular creditor. In a number of states, a waiver of exemption is void as against public policy.

VOIDABLE PREFERENCES.—A bankrupt gives a preference if being insolvent he has within the 4 months immediately preceding the filing of the bankruptcy petition, or between the filing of the petition and adjudication, procured or permitted a judgment to be entered against himself or made a transfer of any of his property, and the effect of such judgment or transfer is to enable any of the creditors to obtain a greater percentage of the debt due him than any other creditor of the same class. Such preferences are voidable and the trustee may bring action to recover such property, provided the creditor receiving such preference had reasonable cause to believe that such judgment or transfer would effect a preference. The preference can only be extended to one having a provable claim. Intent on the part of the debtor to give a preference is not necessary to make it voidable.

Likewise **any lien** obtained against bankrupt's property by legal process, which was begun not more than 4 months before the filing of a bankruptcy petition, such as attachment, garnishment, or equity receivership, is dissolved by the adjudication of the bankrupt if it appears that the lien was obtained and permitted while the defendant was insolvent, or the party benefited had reasonable cause to believe that the defendant was insolvent, or if such lien was sought and permitted in fraud of the provisions of the Bankruptcy Act. Liens, however, given and accepted in good faith and not in contemplation of fraud upon the Act, and against the creation of a debt after the commencement of the prescribed 4 months' period, are not affected by this provision. Similarly statutory liens, such as mechanics' liens, are also excepted from the provision.

FRAUDULENT TRANSFERS.—Transfers of property made by the bankrupt when insolvent within the 4 months immediately preceding adjudication, for the purpose of hindering, delaying, or defrauding creditors, are void and the trustee may bring action to recover the property or its value. The burden of proof is on the transferee, who must prove his own good faith and that he has given a fair consideration for the property. An example of a fraudulent transfer is the sale of the entire stock of goods for less than cost.

CONTINUANCE OF BUSINESS.—A receiver, marshal, or trustee when appointed may be authorized by the court to continue the business of the bankrupt for a limited period, which may be extended and re-extended a number of times. The purpose of this is to preserve

a going business and thus sell it as such. A trustee under this authority may have implied **power to borrow money**; or power may be expressly conferred upon him by the court. Orders of the court with respect to the powers of receiver or trustee are regarded as notice to all persons, and it is the duty of those dealing with a receiver or trustee to inquire concerning the extent of his authority.

BURDENSOME PROPERTY.—Although the law is silent on the point, courts authorize referees, after consultation with creditors, to permit trustees in bankruptcy to reject property of bankrupt which is onerous or unprofitable and which will prove burdensome rather than beneficial to the estate. Thus where property is mortgaged for more than its value, the court may direct the surrender of the property to the mortgagee upon such conditions as may be considered best. Trustees, like receivers in equity, may either assume or renounce executory contracts of the bankrupt as they think is best in the interests of the estate, and they may take a reasonable time in which to decide whether to accept the contracts or reject them and leave the injured party to such legal remedies as the case affords. Title to repudiated contracts remains in the bankrupt, who may enforce them. A trustee may assume or reject the lease of a bankrupt tenant within a reasonable time after adjudication.

PARTNERSHIPS IN BANKRUPTCY.—A partnership is considered a **legal entity** in bankruptcy proceedings separate and distinct from its members. It owns its property and owes its debts apart from the individual property and debts of its members. It may, therefore, be adjudged a bankrupt without the individual partners being adjudged, or it may be adjudged jointly with one or more or all its general partners. If a petition is filed in behalf of a partnership by less than all the general partners it must allege that the partnership is insolvent. The creditors of the partnership appoint the trustee, who usually is also trustee of the bankrupt partner or partners. The court which has jurisdiction of one of the general partners has jurisdiction over all, including partnership, property. In the case of involuntary bankruptcy, the firm or member acting within the scope of the partnership must have committed the act of bankruptcy. The commission of an act of bankruptcy as to partnership property by one of the partners amounts to an act of bankruptcy. The law directs that **partnership property** be appropriated to the payment of partnership debts and the property of the individual partners to the payment of their respective individual debts. If any surplus remains of the property of any partner after paying his debts, it is to be added to the partnership assets and to be applied to the payment of the partnership debts. Any surplus of the partnership property remaining after paying the partnership debts is to be added to the assets of the individual partners in proportion to their respective interests in the partnership.

The court (referee) may permit the proof of the claims of the partnership estate against the individual estates, and vice versa, and may marshal the assets of the partnership estate and the individual estates so as to prevent preferences and secure the equitable distribution of property of the several estates. In the event that one or more but not all the partners are adjudged bankrupts, the partnership property can-

not be administered in bankruptcy except by consent of the partners not adjudged bankrupts; but the general partners not adjudged bankrupt must settle the partnership business as expeditiously as possible and account for the interest of the bankrupt partner or partners. Where all the general partners are adjudged bankrupt the partnership is also adjudged bankrupt.

A partnership may be adjudged a bankrupt after its dissolution if there has as yet been no final settlement. Since an estate of a deceased debtor cannot be adjudged a bankrupt, it follows, according to some authorities, that a partnership, one member of which is dead, cannot be adjudged a bankrupt. Surviving members can be so adjudged as individuals.

SUMMARY JURISDICTION OF THE BANKRUPTCY COURT.—The trustee may seize, if he can do so peaceably, property belonging to the bankrupt estate which is being withheld by bankrupt or by some one who claims no beneficial interest in it. If peaceable seizure is impossible, he obtains an order from the referee requiring the party in possession to surrender the property under penalty of contempt. The order is obtained in what is known as a summary proceeding, which is ordinarily begun without summons or subpoena and is usually tried upon affidavits and at short notice, or is determined in an ex parte manner. Power of the referee thus to proceed summarily depends upon whether the subject matter of the proceeding is in the possession of the court, actually or constructively.

The same summary jurisdiction is exercised by the bankruptcy court in determining the rights of third parties claiming property in the custody of the trustee, no regular or plenary suit being required. The petition filed for this purpose is variously styled "petition for redelivery," "for reclamation," "for surrender," or "for restitution." There are likely to be many articles in the bankrupt's possession, when he is adjudicated, which do not belong to him, such as goods left in storage, for repairs, on consignment or approval. These may be **reclaimed by their owners** from the trustee by summary proceedings. Liens upon and interests in property in the custody of the bankruptcy court (receiver, marshal, or trustee) may be passed upon by the court by summary proceedings and the validity and priority of the liens determined.

While the trustee is vested with title to bankrupt's property wherever it is located in the United States, he cannot assert his rights by proceedings, summary or plenary, in the court of which he is an officer with regard to property located in other judicial districts. He must institute **ancillary proceedings** in the courts of those districts, which may by summary order compel delivery of property or documents, grant injunctions, or enforce examinations of bankrupt and witnesses, in the same manner as the original bankruptcy court would do if the parties were within its jurisdiction. The ancillary proceedings in these other courts are to all intents and purposes part of the proceedings in the court entertaining original jurisdiction of the bankruptcy case.

ADVERSE CLAIMANTS.—These are third parties having no interest in the bankruptcy suit, either as bankrupt or creditors, who are in possession of and claim title to certain property which the trustee claims as belonging to the bankrupt estate. They are outside the juris-

diction of the bankruptcy court and the trustee can only assert his rights by bringing a **formal, plenary suit** against them in the proper court. The law provides that in all controversies at law and equity, as distinguished from proceedings in bankruptcy, between trustee and adverse claimants concerning property acquired or claimed by the trustee, the United States district courts have jurisdiction in the same manner and to the same extent as if the bankruptcy proceedings had not been instituted and such controversies had been between the bankrupt and the adverse claimant.

JURISDICTION OF STATE AND OTHER COURTS OVER BANKRUPT'S PROPERTY.—The following is adapted from A Business Man's Manual of Bankruptcy Law, by Harold Remington:

Where property afterward claimed by the bankruptcy trustee is taken into custody by a state court (or any court other than the bankruptcy court in question) before the bankruptcy petition is filed, the state court, or such other court, continues to retain jurisdiction over the entire matter involving the property, except in three instances, and all the trustee can do is to get himself admitted as a party to the case in the state court and litigate his rights there. The three exceptions are as follows:

1. When possession by the state court has created a **lien by legal proceedings within four months of the filing of the bankruptcy petition** and while the debtor is insolvent, the state court does not retain jurisdiction, but the property affected must be surrendered to the bankruptcy court.

2. When the property at the time of bankruptcy is **in the possession of an assignee for the benefit of creditors or of a receiver or trustee appointed outside of bankruptcy,** and when the assignment, receivership, or trusteeship is created within 4 months preceding the filing of the bankruptcy petition, the bankruptcy court, upon adjudication of the bankrupt, supersedes the court appointing the assignee, receiver, or trustee, and takes over the property involved for administration in bankruptcy.

3. When property at the time of bankruptcy is in the custody of the state court under **state insolvency or state bankruptcy proceedings,** or proceedings amounting to such, such proceedings are superseded by the federal bankruptcy proceedings. This, however, does not apply to general assignments for benefit of creditors. It is, therefore, important to distinguish between a true state insolvency law, which is absolutely suspended by the Bankruptcy Act, and the general assignment law, which is only voidable by the institution of bankruptcy proceedings within the prescribed 4 months' period. To be a bankruptcy law a statute must provide the machinery for throwing a debtor into insolvency involuntarily and for completely administering his assets. General assignment laws simply provide a system for administering voluntary assignments in trust. It has always been possible for a debtor to deed his property in trust, and to pay all or some class of creditors, and equity has always had jurisdiction to compel the proper carrying out of such trusts.

Some states have bankruptcy laws even providing for the discharge of the bankrupt. This does not contravene the article of the United

States Constitution prohibiting a state to pass any laws impairing the obligation of a contract, first, because of the rule of law that an existing statute is to be read into every contract as a part of its terms, and second, because the law applies to the creditors of the state, and creditors of other states must consent to the proceedings before they are allowed to share in dividends.

SALE OF PROPERTY.—When the trustee is prepared to sell a portion of the bankrupt's property, he files a petition with the referee and secures a permitting order. Ten days' notice must thereupon be given of the forthcoming sale to all creditors who have proved their claims, whether their claims have been allowed or not. No such notice is necessary, however, if the property is of a perishable nature. The sale must be conducted at public auction unless the referee authorizes a private sale. Each parcel of the bankrupt property must be **appraised by three disinterested appraisers** appointed by and reporting to the court or referee, and no sale may be made for less than 75% of the appraised value, except by approval of the court. The bankrupt or any of the creditors may bid at the sale, but not the trustee, referee, appraisers, or any of their agents. A **reorganization committee** or a reorganized corporation may also bid.

The trustee's sale is a **judicial sale** so that the rule of caveat emptor applies, the sale passing only such interest as the trustee has title to. In a judicial sale property in the custody of the court is sold while the proceedings concerning it are still pending, the court being the actual seller, and the sale is not consummated and the purchaser does not take title until the sale is confirmed by the court. Nothing but fraud, accident, a mistake, or some other cause for which equity would void a like sale warrants a court in avoiding a confirmation of sale.

Property may be sold by the trustee subject to any **existing liens,** or it may be sold, without the lienholder's consent, free of these liens, which in that case pass to the proceeds. However, ordinarily a **sale free of liens** should not be ordered unless the lienholders request it and there is reasonable prospect that a surplus will remain for the general creditors. When the purchaser is one of the lienholders, he may apply the value of the lien upon the purchase price.

The **costs and expenses of the preservation and sale of each piece of property** are paid out of the proceeds of its sale, even though they are not enough to satisfy in full any existing liens on the property.

PAYMENT OF DEBTS WITH PRIORITIES.—The Bankruptcy Act prescribes a certain order of priority in the payment of the several classes of creditors out of the net amount of property left after the segregation of property belonging to adverse claimants, secured creditors, and the exemptions, and after the payment of the expenses of the individual sales. The **order of priority** is as follows:

1. The actual and necessary expenses of preserving the bankrupt estate. Filing fees paid by creditors in involuntary cases, and reasonable expenses in recovering to the estate property transferred or concealed by the bankrupt. Cost of administration and one attorney's fee as the court may allow, for services actually rendered to creditors in involuntary cases and to the bankrupt in voluntary and involuntary cases.

2. Wages due workmen, clerks, traveling or city salesmen, or servants of the bankrupt, earned within 3 months before the commencement of bankruptcy proceedings, not to exceed $600 for each such claimant.
3. The reasonable costs of creditors resulting in the refusal, revocation, or setting aside of an arrangement, a wage earner's plan, a bankrupt's discharge, or the conviction of any person of an offense under the Act.
4. Taxes to United States, state, county, district, or municipality.
5. Debts owing to any person who by the laws of the states or the United States is entitled to priority. (Term "person" includes corporations, the United States, the several states and territories of the United States.) Rent owing to a landlord who is entitled to occupancy of the premises, and which accrued within 3 months prior to bankruptcy.

When a creditor has **security for his debt** the security must be surrendered or sold to entitle him to any payment along with the general creditors.

DECLARATION AND PAYMENT OF DIVIDENDS TO CREDITORS.—The residue of the bankrupt estate, after the payment of the priorities, belongs to the general creditors, in whose interest it has been primarily administered. Dividends of an equal per cent are declared on all allowed claims. The **first distribution** must be declared within 30 days after the first date set for the first meeting of creditors if by then there is cash enough in the estate to pay 5% on the claims already allowed. The first dividend must not exceed one half of what is likely to remain for the general creditors after the payment of all prior claims, and all costs of administration that will probably be incurred. **Dividends after the first** are to be declared upon the same terms as the first and as often as the amount equals 10% or more, and upon the closing of the estate. After the expiration of 6 months following the first date set for the first meeting only one dividend need be declared. Creditors having claims allowed after one or more dividend declarations are entitled to receive the previous dividends before another dividend is declared to all the creditors. The final dividend is not to be declared until 3 months after the declaration of the first dividend in order to permit the belated creditors to share in the estate.

While the law provides for distribution to creditors in equal proportions, it will not disturb creditors in the possession of the earlier dividends if the balance of the estate is not sufficient to pay the same proportion to creditors appearing later with allowed claims. If the bankrupt is also such in a foreign court, creditors residing in the United States are first to be paid a dividend equal to that distributed by the foreign court to creditors abroad before any payments are made out of the proceeds of the estate located in this country to the foreign creditors. Ten days' notice of dividend declarations and payments must be given by mail to creditors. The dividends cannot be attached and the trustee cannot be garnisheed for dividends in his hands.

Dividends which remain unclaimed for one year after the final dividend has been declared must be paid into the court by the trustee. Those remaining unclaimed for one year are to be distributed under the direction of the court to creditors whose claims have been allowed but have not been paid in full, and the balance is to be paid to the bankrupt.

CLOSING OF THE BANKRUPT ESTATE.—Final accounts of the trustee must be filed with the referee 15 days before the date fixed for the final meeting of creditors who are thereby given an opportunity to examine accounts and thus place themselves in a position to ask pertinent questions of the trustee at the meeting. The creditors receive 10 days' notice of the meeting.

If the trustee's accounts show proper administration of the estate and distribution of the assets, they are approved by the referee, who discharges the trustee and closes the estate, an order to that effect being entered. The referee thereupon certifies to the report and transmits it to the court clerk, along with the records, which thereafter constitute the record and files of the bankruptcy court in the case.

REOPENING OF BANKRUPT ESTATE.—The judge of the bankruptcy court may reopen the estate upon the application of a creditor made within a reasonable time, if evidence is submitted that the estate was not completely administered. The common ground for reopening is the discovery of additional assets which existed when the bankruptcy petition was filed and therefore belonged to the estate. Upon reopening, a new trustee is appointed, the old trustee not being reinstated. When the administration of the reopened estate is completed, it is again closed in the manner described above.

DISCHARGE OF BANKRUPT.—This is a release granted by the court from all debts that remain unsatisfied from the bankrupt estate, with certain exceptions. Bankrupts, other than corporations and those classified as corporations, do not have to apply for a discharge. Adjudication operates as an application for discharge. A corporation may, within 6 months after its adjudication, file an application for its discharge, though there is no particular purpose in a corporation filing an application, since bankruptcy usually means the demise of the corporation even if its business is continued by a reorganized corporation. After the bankrupt has been examined the court fixes a time for filing objections to his discharge. Creditors have 30 days' notice in which to file objections to the bankrupt's discharge and, if objections are filed, 10 days' notice of the hearing on the objections. Discharge may be opposed for cause by the trustee, creditors, the United States attorney, or such other attorney as the Attorney General may designate. The court grants the discharge if it is not opposed.

WHEN DISCHARGE NOT ALLOWED.—The bankrupt must be accorded the relief he seeks unless he is guilty of one of the following acts:

1. Has committed any offense punishable by imprisonment under the provisions of the Act.
2. Has destroyed, mutilated, falsified, concealed, or failed to keep books of account or records from which his financial condition and business transactions might be ascertained, unless the court deems such failure or acts justified under all the circumstances of the case.
3. Has obtained money or property on credit, or obtained an extension or renewal of credit, by making or publishing, or causing to be made and published, in any manner whatsoever, a materially false statement in writing respecting his financial position.

4. At any time within the 12 months immediately preceding the filing of the application, has transferred, removed, destroyed, or concealed, or permitted to be removed, destroyed, or concealed, any of his property with intent to hinder, delay, or defraud his creditors.
5. Has been granted a discharge in bankruptcy within previous 6 years, or had a composition, arrangement, or wage earners' plan.
6. Has refused to obey any lawful order of, or to answer any material question approved by, the court in the course of the bankruptcy proceedings.
7. Has failed to explain satisfactorily any losses of assets or deficiency of assets.

DEBTS NOT AFFECTED BY DISCHARGE.—A discharge only affects debts incurred before bankruptcy and only those that are provable, except the following:

1. Taxes of the United States, the state, county, district, and municipality in which the bankrupt resides.
2. Liabilities for obtaining property by false pretenses or false representations, or for wilful and malicious injuries to the person or property of another or for alimony due or to become due, or for maintenance or support of wife or child, or for seduction of an unmarried woman, or for criminal conversation.
3. Debts which have not been duly scheduled in time for proof and allowance, with the names of the creditors, if known to the bankrupt, unless such creditors had notice or actual knowledge of the proceedings in bankruptcy.
4. Those created by bankrupt's fraud, embezzlement, misappropriation, or defalcation while acting as an officer or in any fiduciary capacity.
5. Those for wages due to workmen, clerks, traveling or city salesmen, or servants, which have been earned within 3 months of the commencement of bankruptcy proceedings.
6. Those due for money received from an employee and retained to secure the faithful performance by the employee of the terms of the contract of employment.

The liability of any person who is a **co-debtor** with the bankrupt, or is a **guarantor**, or in any manner a **surety** for him, is not altered by the bankrupt's discharge.

REVOCATION OF DISCHARGE.—Upon application of any party in interest made within one year after the discharge, where the applicant has not been guilty of any lack of proper diligence in the matter, the judge may revoke the discharge if it is shown upon trial that it was obtained through the fraud of the bankrupt and the petitioner had no knowledge of the fraud before the granting of the discharge. In the event of such revocation the property acquired by the bankrupt after adjudication is applied in payment of the claims of creditors who sold such property to the bankrupt, and the residue, if any, to debts owing at the time of adjudication.

WAGE EARNERS' PLANS.—The Bankruptcy Act provides (Chapter XIII) that a wage earner whose total income does not exceed $5,000 per year may institute a voluntary proceeding to effect a settlement of his debts out of future earnings. Wage earners' plans may provide for settlements with secured and unsecured creditors upon any terms. The plan deals with the unsecured creditors as a class but must

deal with secured creditors individually. The court in which the proceeding is commenced has exclusive jurisdiction of the debtor and his property wherever located and of his earnings and wages during the period of the consummation of the plan. The court may permit the rejection of executory contracts of the debtor; extend, for cause, the time for taking any steps in the proceeding; and enjoin, or stay until final decree, the commencement or continuation of suits including any proceeding to enforce any lien upon the debtor's property.

The debtor must set forth in his petition that he is insolvent or unable to pay his debts as they mature, and that he desires to effect an extension or composition, or both, with his creditors. A first meeting of creditors is called promptly at which the debtor must present his plan. The plan must include provisions dealing with unsecured debts generally, upon any terms; provisions for submission of future earnings of the debtor to the supervision and control of the court; that the court may, during the period of the plan, increase or decrease the amount of any of the instalment payments, or extend or shorten the time for any such payments where the debtor's circumstances so warrant or require; and may include a plan for dealing with secured debts severally upon any terms; may provide for priority of payment as between secured and unsecured debts affected by the plan, and for the rejection of executory contracts. The debtor may procure the acceptances, which must be in writing, of the creditors before or after the filing of his petition. The plan must be accepted by all the secured creditors affected by the plan, and by a majority in number and amount of unsecured creditors whose claims have been approved and allowed before the conclusion of the first meeting of creditors. Upon confirmation by the court, the plan becomes binding on the debtor and all creditors. Upon completion of all payments to be made under the plan, the court enters an order discharging the debtor from all his debts provided for in the plan, except debts which are not dischargeable in a regular bankruptcy proceeding, unless such creditors have accepted the plan. The debtor may be discharged by the court three years after the confirmation of the plan even though all payments under the plan have not been completed. If a plan cannot be agreed upon, the alternatives are to dismiss the proceedings or adjudge the debtor a bankrupt.

AGRICULTURAL COMPOSITIONS AND EXTENSIONS.—Special provision is made for the relief of distressed farmers in Section 75 of the Bankruptcy Act of 1938. Any farmer who is insolvent or unable to meet his debts as they become due may make application to the court to effect a composition or an extension of time to pay his debts. The Act also enables a farmer who has been unable to effect a settlement with his creditors to retain possession of his property under the supervision of the court, have its value fixed by independent appraisers, and repurchase it over an extended period of time. In general, the procedure followed by the farmer under Section 75 is similar to that prescribed for insolvent debtors in other sections of the Act. There are a number of exceptions of which the following are the more important:

1. The Act provides for the appointment of a "conciliation commissioner." The conciliation commissioners have vested in them many of the functions of the referees in regular bankruptcy pro-

ceedings. Among their qualifications, they must be familiar with agricultural methods and conditions and not engaged in any business which would prejudice fair action in proceedings under this section. After the filing of the petition and prior to the confirmation of the plan the court exercises such control over the farmer's property as it deems to the best interests of the farmer and his creditors.

2. Except upon petition made to and granted by the judge after hearing and report by the conciliation commissioner, the following proceedings may not be maintained in any court or otherwise against the farmer or his property after he has filed his petition for composition or extension and prior to the confirmation or other disposition by the court of the composition or extension proposal:

a. Proceedings for any demand, debt, or account, including any money demand.
b. For foreclosure of a mortgage on land, or for cancellation, or specific performance of an agreement for sale of land or for recovery of possession of land.
c. To acquire title to land by any tax sale.
d. Issuance of any execution, attachment, or garnishment.
e. Sale of land under or in satisfaction of any judgment or mechanic's lien.
f. Seizure, distress sale, or other proceedings under an execution or under any lease, lien, chattel mortgage, conditional sale agreement, crop payment agreement, or mortgage.

The foregoing prohibitions do not apply to proceedings maintained against a farmer for the collection of taxes, or interest or penalties in connection with such taxes; nor to proceedings affecting solely property other than that used in farming operations or comprising the home or household effects of the farmer or his family.

If a farmer fails to obtain the acceptance by creditors of his composition or extension proposal, or if he feels aggrieved by the composition and extension, he may petition to be adjudged a bankrupt. At the time of the first hearing he may petition the court that all his property be appraised and that he be allowed to retain possession of all or a portion of his property by paying for it under terms and conditions set forth in the Act.

When requested, a conciliation commissioner is required to assist a farmer in preparing and filing a petition for composition proceedings and in handling all subsequent matters concerned with the proceedings. Farmers are not obliged to be represented by attorneys in such proceedings.

For the purpose of these provisions of the Bankruptcy Act, the term "farmer" means any individual who personally is engaged primarily in farming operations, and includes the personal representative of a deceased farmer. A farmer is deemed a resident of the county in which he conducts his farming operations.

SECTION 23

PENSION AND PROFIT-SHARING PLANS

CONTENTS

PAGE

Types of Pension Plans

Pension plan defined 983
Necessity for a pension plan 983
Employer's four alternatives on superannuation or disability 983
Dismissal without benefits 984
Continuance on active payroll 984
Unfunded pensions 985
Bookeeping reserve 985
Funded pension plan 985
Tax aspects of pension plans 986

Financing Funded Pension Plans

Self-administration (trusteed-securities fund) 988
Deferred group annuities 989
Deposit-administration group annuity 989
Individual retirement income policies 990
Group permanent retirement income 990
Combination plans 990
Advantages and disadvantages of each method of financing 990
Advantages and disadvantages of self-administration 990
Flexibility of contributions 990
No fixed annual contribution commitment 992
Permanence of plan 993
Coverage of pensioners already retired 993
Unusual accrued liability—older-age employees 993
Disability pensions 994
Change of financing method..... 994
Comparative cost 994
Advantages and disadvantages of deferred group annuities 994
Third-party guarantees 994
Employee preference 995
Responsibility for employee contributions 995
Registration as a securities issue .. 995
Administrative cost 996
Advantages and disadvantages of deposit-administration group annuity 996
Advantages and disadvantages of individual retirement income policies 996
Flexibility through borrowing 997
Cost of death benefits 997

PAGE

Advantages and disadvantages of individual retirement income policies —*Continued*
Relationship of death benefits to need 997
Costly vesting 998
Revision of retirement income policy plans 998
Cost if coverage is extended..... 999
Relationship of benefits to earnings 999
Simplicity of administration 999
Cost guarantee 1000
Liberal settlement options 1000
Advantages and disadvantages of group permanent retirement income 1000
Advantages and disadvantages of combination plans 1000

Pension Plan Provisions

Eligibility for membership 1001
Full coverage 1001
Years of service requirement 1001
Minimum age requirement 1001
Maximum age limitation 1002
Effect on eligibility of financing method 1002
Salaried employees only 1002
Higher-paid employees only 1002
Effect of restrictions 1003
Effect of labor turnover 1003
Interrelationship of eligibility and financing 1003
Normal retirement 1004
Age 65 usual 1004
Earlier retirement age for women.. 1004
Staggered retirement ages 1004
Early retirement 1005
Deferred retirement 1005
Pension benefit payments 1005
Percentage of pay per year of service formula 1006
Lower pensions on earnings covered by Social Security 1006
Social Security benefits 1007
Direct deduction of Social Security benefits 1007
Integration with federal benefits .. 1007
Earnings increase to covered level .. 1008
Earnings base 1008
Past service pensions 1009

PAGE

Pension benefit payments—*Continued*
Maximum pensions 1010
Minimum pensions 1010
Limitation on 25 highest-paid employees if plan is terminated 1010
Disability pension benefits 1011
Benefits for severed employees 1012
Vested benefit rights 1012
Vesting of retirement income policies 1013
Vesting in the form of cash 1013
Vesting of past service benefits 1013
Return of employee contributions .. 1013
Death benefits 1013
Return of employee contributions on death 1014
Employer contributions 1014
Self-administered plans—level percentage of payroll method 1014
Group annuity plans—single-premium deferred annuity method 1015
Group annuity plans—deposit-administration method 1015
Individual policy plans 1016
Group permanent retirement income plans 1016
Contributions for stockholders 1016
Employee contributions 1017
Advisability of providing for employee contributions 1017
Trends in use of contributory plans 1017
Ratio of employee contributions to benefits 1017
Investments 1018
Termination of plan..... 1018
Termination of self-administered plan 1018
Distribution formula 1019
Termination of group annuity plans 1019
Termination of individual policy plans 1019
Early termination—tax penalty 1019
Pension committee 1020
Trustee 1020
Appointment 1021
Functions 1021
Liability 1021
Resignation or removal 1021
Relation of trust to plan 1021
Tax rulings 1021
Powers and duties 1021

"Money Purchase" vs. "Fixed Benefit" Procedure

Definitions 1022
Fixed benefit plan advantages 1022
Money purchase plan advantages 1023
General considerations 1023

Profit-Sharing Plans

Immediate-distribution profit-sharing plans 1024
Definition and objectives 1024
Scope and nature 1024
Profit-sharing formula 1024
Allocations to participants 1024
Size of organization 1025
Relation to basic compensation 1025
Employee reaction 1025
Tax status 1025
Deferred-distribution profit-sharing plans 1026
Definition 1026
Objectives 1026
Collective bargaining implications.. 1026
Deferred-distribution profit-sharing plans compared with pension plans 1027
Examples of retirement benefits under deferred-distribution profit-sharing plan and pension plan 1029

Provisions of a Deferred-Distribution Profit-Sharing Plan

Profit-sharing formula 1029
15% of compensation limit 1029
Determination of profits 1030
Method of allocation 1030
Past service pensions not permitted 1030
Basis of individual accounts 1030
Eligibility for membership 1031
Retirement 1031
Age pension benefits 1031
Use of single-premium annuities .. 1032
Use of ordinary life insurance policies 1032
Disability pension benefits 1032
Severance of employment benefits 1032
Death benefits 1033
Death benefits under ordinary life insurance policies 1033
Death benefits under group annuity contract 1034
Employee contributions 1034
Investments of profit-sharing fund .. 1034
Individual policies 1035
Group annuity contract 1035
Termination of plan 1036
Administrative committee 1036
Trustee 1036
Compensation 1037
Tax rulings 1037

SECTION 23

PENSION AND PROFIT-SHARING PLANS

Types of Pension Plans

PENSION PLAN DEFINED.—The term "pension plan" includes formal or informal procedures by which an income is provided for employees who are retired after attainment of a prearranged age, date, or condition. As herein considered, a pension plan is a formal arrangement made by an employer to anticipate by advance financing, in whole or in part, the responsibility which he considers that he carries to provide retirement benefits for some or all of his employees.

A pension plan is usually part of a broader **employee benefit program** that may include other benefits such as vacations and payments for sickness, hospitalization, death, or termination of employment. Such a program is frequently based upon the broad philosophy of providing protection for employees against the economic hazards not only of old age but also of total and permanent disability, severance of employment, and death. A plan may begin in an abbreviated form and be expanded in time to provide more complete protection against these hazards.

NECESSITY FOR A PENSION PLAN.—Any employer who remains in business for any great length of time cannot avoid facing problems and making decisions concerning employees who become superannuated or disabled after years of service. The employer may not recognize these problems, however, until actual cases of superannuation and total and permanent disability appear among his employees after many years of service.

It is a mere question of time until these conditions must be faced. Therefore, the question is not so much whether a pension plan is needed, but rather what kind of a pension plan will best fit into the employer's program.

Employer's Four Alternatives on Superannuation or Disability.—The employer has one of four choices concerning the treatment of employees who become superannuated or disabled after long periods of service:

a. To dismiss aged and disabled employees without benefits; or
b. To keep them on the active payroll; or
c. To retire them on pensions financed on a pay-as-you-go basis; or
d. To establish a funded pension plan under which accruing pension credits are financed as they accumulate during the years of active service.

Each of these procedures has been followed by employers. Before making a choice as to the most satisfactory procedure for a particular employer, the implications of each of the procedures should be considered.

Dismissal Without Benefits.—The morale of employees, whether organized or not, would be impaired by a policy of dismissing, without suitable benefits, employees who become superannuated or disabled after many years of service. Such a policy not only has a detrimental effect on the employees as a whole, but on public relations as well. The public relations implications are of particular importance in small communities or localized areas in which the business operates. The disadvantages of the "dismissal" choice are illustrated by the case of an employer who attempted to inaugurate a program of discharging employees when they reached age 65. As no pensions were provided for these employees, they would have been compelled to retire on federal Social Security benefits alone. The union representing the employees authorized a strike against the company if necessary to force it to desist from such a program, and demanded a program of retirement benefits for its members. It was stated that the retirement program resulting from these negotiations would be used as a model for the industry. Notice was served that a provision for a pension program would be a "must" in any new contract.

The trend toward providing pensions for employees who may be displaced for reasons making it advisable or necessary to reduce the work force is exemplified by a recent arbitration award in the case of a large transportation company in connection with its proposal to change its method of operation to enable it to reduce its operating personnel. As a part of the conditions for such a change, the arbitrator's award included provision for retirement of terminated employees over the age of 65 on a monthly annuity equal to 1½% of the average monthly earnings for the 10-year period prior to January 1, 1946, multiplied by the number of years of service, all in addition to Social Security benefits, and retirement of those between the ages of 60 and 65 on the same basis, plus payment by the company of additional temporary sums to age 65 equal to what the individual would receive under Social Security (which does not commence until age 65).

Continuance on Active Payroll.—Experience has indicated that the employer's second choice, that of keeping superannuated or disabled employees on the active payroll, is sometimes followed as the course of least resistance when an employer finds that the dismissal policy is impracticable. But it is probably the most expensive and unsatisfactory procedure. It involves a hidden cost progression which is not recognized at first because it is small. The first to become superannuated usually are few in number because they are generally the survivors of a small group of employees who constituted the original organization. The number of employees who become superannuated usually increases steadily for a long period of time, in fact, for 3 or 4 decades after the business ceases to expand its personnel.

An example of continuance on active payroll is the case of a large company whose cost experience has been analyzed. It was found that it had so many over-age employees on its active payroll whose services

could be wholly or partially dispensed with that by retiring them on pensions, and making the few promotions among the younger employees that were necessary to carry on their work, the payroll savings exceeded the currently accruing cost of a funded pension plan. The facts of this case are indicative of the ultimate cost of carrying superannuated employees on the active payroll, not to mention the detrimental effect on the morale of younger employees when promotional channels are blocked, or the effect on productive efficiency and production costs of keeping superannuated employees in active service.

Unfunded Pensions.—The third choice is the retirement of employees on pensions financed on a **pay-as-you-go basis.** This is an in-between type of procedure which many employers have attempted and abandoned. One disadvantage of this procedure is that the cost burden becomes a constant drain as a part of overhead expense in both good and bad business years, and in periods of high as well as of low taxation. Another objection is that employees have no protection against reduction or elimination of pensions financed on a pay-as-you-go basis. Such reduction or elimination may be the result of adverse future business conditions, changes in management, or the merger, sale, or discontinuance of the business.

Bookkeeping Reserve.—Some employers have endeavored to buttress pay-as-you-go pensions with a supplemental bookkeeping reserve. The reserve accumulated to pay pensions is kept as an asset of the company instead of being segregated in a separate pension trust fund or turned over to an insurance company. This method has a number of disadvantages. One of these is that the employer loses the benefit of tax deductions on any funds that are held in the form of a bookkeeping reserve until the funds are paid to retired employees. Another disadvantage is that the income earned on the bookkeeping reserve is subject to corporate income tax, whereas the income which would be earned on the segregated assets of a qualified pension trust fund, or realized under a plan with insurance company underwriting, is exempt from income taxes.

In one case a company which maintained a bookkeeping reserve that it held as a part of its corporate assets during the four years 1941–1944, inclusive, found, upon analysis of the tax situation, that it could have accumulated the same pension reserve at less than one-third the cost by segregating it in a tax exempt pension trust, or under an insured plan. While those were excess profits tax years, the same principle operates at all corporate tax levels.

Funded Pension Plan.—The fourth choice, to establish a funded pension plan (with pension financing during the years of active service whether by a trusteed-securities fund or an insured plan), has been found to be the most satisfactory.

1. **Basic advantages of funding.** Employers generally have found that the costs of funded or insured pension plans represent an investment that pays dividends.

A strong indication that funded pension plans are more satisfactory than any other procedure is the fact that while there have been pension systems in this country for over 75 years, there has been a marked expansion in the number of funded plans and a shrinkage in the number of

unfunded procedures to the point where there are about 16,000 funded pension systems, and an insignificant number of unfunded pension plans.

2. **Payroll relief.** A properly funded pension plan helps an employer to retire superannuated and disabled employees, carry out delayed retirements, and effect early retirement of inefficient employees if a business depression makes it necessary to reduce the payroll expense to a minimum in order to meet competition, or even to stay in business. The payroll relief thus gained is financed by contributions made to the funded pension plan in previous more prosperous years. Without a funded pension plan, such employees would entail a current pension or payroll burden; whereas, under a funded plan, such employees are off the payroll, receiving pensions from the pension trust fund or the insurance company.

3. **Other advantages.** Under a funded pension plan, the pension expense is met as a charge against current production, instead of being allowed to accumulate as a charge against future operations. Without a funded pension plan, under which the liability to pay future pensions created as a result of current production is financed as it is incurred, present profits are exaggerated at the expense of future profits, and the future competitive position of the business may be jeopardized. Furthermore, the known cost of a funded pension plan is at all times a guide indicating whether the benefits and the conditions of payment are feasible from a cost standpoint. Employees appreciate the financing of funded benefits for their future security while they are actively working, whereas active employees tend to discount the value of pay-as-you-go pensions since they usually have little or no assurance that they will ever benefit from such a program. Similarly, retired employees feel less secure if they have to depend on the employer's ability and willingness to continue their pensions on a pay-as-you-go basis instead of receiving pensions under a funded plan.

TAX ASPECTS OF PENSION PLANS.—Among the advantages of a funded pension plan are the tax benefits realized under plans which comply with the Internal Revenue Code as amended by the Revenue Act of 1942. If the plan meets the requirements of Section 165(a) of the Code, employer contributions are deductible from taxable corporate income for the years in which the contributions are made, within limits stated in section 23(p). The net cost of the plan may thus be reduced considerably. Tax laws of most states grant deduction privileges similar to those provided under federal law.

Moreover, employer contributions for pension and disability benefits under a qualified plan do not constitute taxable income to the employee participants until benefits are actually paid or made available to them. Since the employee is then usually in a lower tax bracket, considerable savings in taxes result as compared with the payment of additional compensation to the employee, particularly for executives and higher-paid employees. If all benefits standing to the credit of an employee arising from employer contributions under a qualified plan are distributed to him in one taxable year because of termination of service, the distribution is treated as a long-term capital gain and the tax is limited to 26% of the gain. Furthermore, income earned under a qualified plan is exempted from tax to the trust or plan.

Section 165(a) requires that a qualified plan must meet the following conditions:

1. Contributions must be for the sole purpose of distributing the corpus and income of the plan or trust to the employees or their beneficiaries.
2. It must be impossible for any part of the fund to be used for purposes other than the exclusive benefit of employees or their beneficiaries prior to the satisfaction of all liabilities under the plan or trust.
3. The plan or trust must benefit either (a) at least 70% of all the employees, or at least 80% of the eligible employees if at least 70% are eligible, excluding in each case those not eligible because of a service requirement of up to 5 years and because of temporary or part-time employment, or (b) employees under an eligibility classification found by the Commissioner not to favor officers, shareholders, supervisory employees, or highly compensated employees.
4. The contributions or benefits must not discriminate in favor of employees who are officers, shareholders, supervisory employees, or highly compensated employees.
5. A classification is not considered discriminatory merely because it excludes certain employees such as all employees not paid on a salaried basis or those whose remuneration constitutes "wages" subject to the Social Security Act, i.e., those whose annual compensation does not exceed $3,600; or because contributions or benefits differ for that part of compensation constituting such "wages." But Mimeograph 6641, issued by the Commissioner of Internal Revenue, limits the extent to which such benefits may differ.
6. The plan or trust meets requirements as to eligibility or employee participation throughout a taxable year if it does so on one day in each quarter thereof.

Section 23(p)(1)(A) allows deductions from taxable income for employer contributions amounting to either (i) sums reasonably necessary to meet the cost of the plan up to 5% of the compensation of the participants, plus (ii) any additional amounts that are necessary to meet the cost distributed as a level amount or level percentage of compensation over the future service of each employee, or (iii) the normal cost of the plan plus an amount not in excess of 10% of the cost to completely fund or purchase past service or supplementary pension credits as of the date they are included in the plan, determined under regulations prescribed by the Commissioner.

Contributions in excess of the amount deductible in any year become deductible in the next succeeding year or years to the extent of the difference between the contributions made and deducted in the succeeding year and the maximum amount that is deductible as described above.

Federal Tax Regulations 111, "PS" rulings of the Pension Trust Information Service of the Bureau of Internal Revenue, Mimeographs issued by the Commissioner, and "IT" rulings of the Income Tax Unit should be consulted for answers to questions concerning the determination of deductible contributions.

Section 23(p)(1)(D) provides that if a plan does not meet the requirements of section 165(a), employer contributions are deductible from taxable income only if the employee's rights derived from the contributions are nonforfeitable at the time the contribution is paid, i.e., the right to receive the benefits is not forfeited by termination of service

for any reason. Section 165(c) provides that if a plan does not qualify under section 165(a), employer contributions made for an employee whose benefits are nonforfeitable must be included in the current taxable income of the employee. Under a nonexempt plan, employees whose benefits are forfeitable are not taxed for employer contributions as currently made, but only when the benefits are distributed or made available to him.

Because tax advantages will not be realized unless the plan meets the requirements of section 165(a), it is desirable to secure a ruling approving the plan from the Commissioner of Internal Revenue. An **advance ruling** as to whether a plan meets the provisions of section 165(a) will be issued by the Commissioner when the request is accompanied by the detailed information required by Section 29.23(p)-2 of Regulations 111. The request for a ruling, together with this information, should be sent to the Commissioner of Internal Revenue, Pension Trust Division, Washington, D. C. The information is then sent from Washington to the local field office of the Bureau for analysis. The local office may request further information. If the plan does not appear to qualify, the local office may request the employer or his representative to attend a conference at which amendments thought necessary are discussed, the case being left open until necessary amendments are made. If and when the plan is satisfactory, a letter approving it is issued. Following approval or disapproval by the local office, cases are generally returned to Washington for final review. This review may be delayed several months. Requests for approval of amendments to a plan or trust, including those necessary to conform to general rulings issued after it is initially approved, should be sent to Washington.

Letters of approval under section 165(a) do not assure deduction of contributions made under the plan. These are subject to review when a field audit of the tax return is made.

Section 29.165-1(c) of Regulations 111 requires that a trust claiming exemption must file detailed information with the Commissioner for each taxable year. But if the employer has filed the information required to establish the fact that the plan has qualified, the trustee need only file a request for exemption stating the names and addresses of the parties to the agreement and the date thereof, the taxable year involved, and copy of a notification from the employer stating that the information has been filed and giving the name of the office where it has been filed.

Financing Funded Pension Plans

SELF - ADMINISTRATION (TRUSTEED - SECURITIES FUND).—The term "self-administration" is to some degree a misnomer that has been widely accepted to indicate the trusteed-securities method of financing a plan. Under this type of financing, the employer divests himself of the contributions by irrevocable payment to a trustee. The funds in the hands of the trustee constitute a trust fund which is administered in accordance with the terms of the controlling trust instrument. This type of plan is often called a **self-insured plan,** usually to distinguish it from a plan underwritten by a group annuity contract, or one under which the trustee turns the funds over to an insurance com-

pany, usually to pay the premiums under individual or group permanent insurance or annuity policies. In the latter case, the only essential function of the trustee is to apply the contributions to pay premiums and to receive and reapply amounts payable from the insurance company, such as dividends and returns under any policies that are cancelled because of the termination of service of employees.

DEFERRED GROUP ANNUITIES.—Under the deferred group annuity type of financing, all contributions are paid to an insurance company under a master contract between the employer and the insurance company for the purchase of deferred annuities on a periodic **single premium basis.** Each participant receives a certificate from the insurance company describing his rights. All liability for benefit payments is assumed by the insurance company so long as the required purchase payments are made. A minimum number of employees, such as 50, is usually required for the issuance of a group annuity contract. If the plan is **contributory,** the usual requirement is that at least 75% of the eligible employees must participate. The premium rates and other provisions are generally guaranteed only for the first 5 years, and are subject to change by the insurance company on any anniversary thereafter, although in practice some insurance companies offer additional successive 5-year guaranties.

DEPOSIT-ADMINISTRATION GROUP ANNUITY.—Under the deposit-administration method of financing, employer contributions paid to the insurance company are held and accumulated at compound interest as a composite, undivided fund much like a composite self-administered fund. When an employee retires, the single premium required to purchase his retirement income is drawn from this fund. The rate of interest credited on the fund and the single-premium immediate annuity rates applicable at retirement are usually guaranteed for contributions paid during the first 5 years of the contract, on the same basis as is used under deferred group annuity contracts, although some insurance companies guarantee the interest rate only for a limited number of years.

Contributions required under this plan can be estimated within limits, subject to the reserved right of the insurance company to change interest and annuity rate guarantees on contributions made after 5 years from the effective date of the contract. The employer's annual contribution into the deposit-administration fund is determined by the benefits to be provided, the cost of annuities at retirement, the expected mortality and interest rate for the period before retirement, and the age, sex, and earnings of participating employees. Assumed scales of salary increases and expected withdrawal rates may also be taken into account. The cost is usually stated as a percentage of payroll. New calculations are made from time to time, to reflect changes in the valuation factors. These require actuarial service.

This type of funding is commonly employed under noncontributory plans where the employer pays the entire cost with no contributions from employees, although it is used in some plans involving employee contributions. For example, noncontributory past service pensions financed on a deposit-administration basis may be combined with contributory current service pensions provided on a typical deferred annuity

purchase basis; or the employee contributions may be applied to purchase deferred annuities, the balance of the cost being financed by employer contributions made under the deposit-administration method.

INDIVIDUAL RETIREMENT INCOME POLICIES.—Generally, under this type of procedure, the employer creates a trust fund and the trustee invests the fund in individual retirement annuity policies, usually combined with an element of life insurance for those who can pass a physical examination. All policies are purchased by the trustee pursuant to the plan and trust agreement. An individual policy is purchased on the life of each participant, generally of the same type that is offered to any person who would purchase a similar policy personally. Such a plan usually calls for the payment of a level premium under each policy issued for a participant, based on his age when the policy is issued, the maturity date when the pension is to begin, and the amount of the pension. Annuity policies are purchased for participants who cannot pass a physical examination, with a death benefit usually amounting to the return of premiums or the cash value, whichever is greater.

GROUP PERMANENT RETIREMENT INCOME.—This is a relatively recent outgrowth of the individual retirement income policy concept. It endeavors to overcome some of the obvious disadvantages of individual policies under a plan including sufficient participants to meet the group underwriting requirements of the insurance company, which enables it to issue life insurance protection irrespective of the health of individual participants, and effect economies resulting from group in place of individual procedure. It is sometimes issued without life insurance, but usually with life insurance (as decreasing term) similar to individual retirement income policies.

COMBINATION PLANS.—Numerous combinations have been developed to secure as many of the advantages of each method as is possible and to minimize the disadvantages of each, or to accomplish certain specific objectives. For example, instead of using retirement income policies as the sole financing vehicle, ordinary life insurance policies which may be converted into an annuity at or one year before retirement are sometimes used under a combination plan. Contributions are accumulated in a trusteed fund to make an additional payment so that the retirement income will be larger than that available from the cash value of the insurance policy alone.

ADVANTAGES AND DISADVANTAGES OF EACH METHOD OF FINANCING.—No method of financing has a monopoly on all advantages, and no method of financing is free of disadvantages. In the following discussions various methods of financing are considered from this point of view.

ADVANTAGES AND DISADVANTAGES OF SELF-ADMINISTRATION.—There are a number of considerations in weighing these, in connection with contributions, coverage, contingency of change in financing method and cost. These aspects of advantage and disadvantage are covered separately in the discussion following.

Flexibility of Contributions.—From the employer viewpoint, the outstanding advantage claimed for self-administration is **flexibility** as

to the amount of contributions to be made by the employer from year to year, combined with availability of funds for payment of full benefits to the employees on schedule as they become due. Flexibility with respect to the making of employer contributions varies with each type of funding method.

Maximum flexibility as to contributions is available under the **self-administered type** of plan which uses a composite fund that is not earmarked for the benefit of individual participants either before or after retirement. Under this arrangement the effect is that any maximum contributions can be made in good business years and used as a cushion to take the place of contributions in years when the employer may find it necessary or advisable to reduce or suspend the making of contributions. But full pension benefits are payable to the retired participants, on schedule as they fall due.

Next in line of flexibility is the combination type, which uses a **self-administered fund** for the period of accumulation before retirement but is **insured when each employee retires.** A single-premium immediate annuity is purchased for him by transferring out of the self-administered fund the single premium necessary to purchase the retirement benefit.

Similar to such a combination plan is the **deposit-administration group annuity** method, under which the insurance company accumulates the contributions in a composite account and does not allocate funds to any particular employee until he is retired, at which time a single-premium immediate annuity is purchased. This method offers contribution flexibility equal to that of a self-administered composite fund with the purchase of annuities at retirement.

Next in line as to flexibility of contributions is the typical **group annuity plan** providing for the purchase of deferred annuities. All employer contributions are allocated to purchase benefits for individual participants. Each participant receives an allocation to his credit for the current year. The past service pensions are also purchased for individual participants by allocation of contributions made for this purpose, usually on the oldest-first basis. Under this procedure, the employer may vary the contributions made for past service benefits within fairly broad limits, except that generally such contributions must be made in amounts at least sufficient to purchase the full annuities by the time employees retire. As to contributions for current service benefits, there is a grace period of 31 days and a provision under which current service contributions may be suspended for a period of 1 year (in some cases longer, usually with the consent of the insurance company) before the contract, as a whole, will terminate. In the event of a suspension of contributions for current service benefits, it is evident that benefits of all active employee participants will be impaired, unless the employer later pays the suspended contributions on a retroactive basis. If contributions are not resumed at the end of the suspension period, the contract terminates as to further benefits, but the usual provision is that all benefits purchased with employer contributions then become fully vested in employees. If the plan is contributory, terminating employees are then usually allowed to withdraw their own contributions with interest and retain title to the deferred annuity benefits provided with employer contributions.

Contributions under a plan using **retirement income policies** (usually with life insurance) are allocated toward the payment of the current year's premium for each and every participant, commonly funding past and future service benefits in the same policy. This requires fixed level annual premiums with no flexibility, since, if the premiums are not paid or are met by borrowing against the cash value of the policies, benefits are jeopardized. Furthermore, since contributions are allocated to make premium payments for the benefit of particular employees, full benefits will not be available to employees who retire during any period in which full contributions have not been made under the plan. Only if such borrowings are repaid before the employees retire, will their pension benefits be paid on schedule. This disadvantage also applies to a group permanent retirement income contract.

On the other hand, these plans have the advantage of assuring all employees that specific benefits have been financed for them as individuals, whereas under a composite self-administered fund or deposit-administration group annuity the younger employees may receive little or no benefits if the plan should be terminated at a time when benefits are not fully funded, depending on the provisions of the plan or trust agreement.

No Fixed Annual Contribution Commitment.—The term "fixed commitment" as used here does not connote a legal obligation committing the employer, since most plans reserve the right to the employer to **suspend contributions or terminate the plan.** But unless regular annual contributions are made the plan may fail to provide the employee benefits originally contemplated or may fail to meet requirements for tax qualification. Such a "fixed commitment" of the employer to pay premiums is generally necessary if the plan is insured before and after retirement. Suspension of employer contributions usually results in temporary, and sometimes permanent, impairment of employee benefits. On the other hand, under self-administration (or deposit-administration group annuity) no fixed annual contribution commitment is necessary. This allows flexibility as to the making of employer contributions because, if a composite fund is used, the pensioners can be paid full pension benefits as they fall due, the entire composite trust fund being available to pay out benefits on a first-come-first-served basis. For example, if $100,000 is accumulated in a self-administered pension trust fund and the first employees retiring are entitled to pensions aggregating $1,000 per month, they receive their full monthly pension checks from the trust fund (whether or not the full value of their pensions has been accumulated). These, and all subsequent pensioners, receive the payments due them until they die (and sometimes payments are continued thereafter until the death of joint annuitants). No relationship is necessary between the timing of the employer's contributions into the fund for a participant, and the timing of the participant's withdrawal of pension benefits out of the composite fund. So long as contributions are paid in amounts sufficient to pay the cost of benefits for current service and prevent the initial unfunded past service pension liability from increasing for all employees, the pension payments may be made on schedule, the fund will remain actuarially sound, and the plan will meet present Treasury requirements described in PS No. 57, issued by the Bureau of Internal Revenue on August 5, 1946. Thus, the employer can diminish or

suspend contributions during recurring depression periods after making larger payments in prior normal or prosperous periods, but with full pension benefits being paid to retired employees on schedule as required. For example, an employer might make maximum tax-deductible payments for 3 years, thereby funding a considerable amount of the liability for past service pensions and establishing sufficient extra reserves to take the place of normal contributions for current service pension credits that otherwise would be required during the next 2 years if conditions made it desirable to suspend contributions completely during those 2 years. This procedure may be repeated indefinitely. Meanwhile, the plan remains sufficiently funded at all times so that benefits are paid on schedule, and the plan meets Treasury requirements.

Permanence of Plan.—Advocates of self-administration claim that self-administered plans with composite funds are most likely to be permanent. They contend that the inherent flexibility as to the timing of employer contributions under self-administered funding enables the plan to ride out economic storms without the necessity of termination or reduction of employee benefits, whereas a plan entailing more rigidity as to employer contributions may have to be terminated during a period of economic stress.

Advocates of self-administered plans claim that the meager data which are available showing why some pension plans have failed in the past indicate two major causes, both of which favor self-administration or deposit-administration group annuity underwriting. The first reason is that **fixed commitments** to pay insurance premiums became too burdensome in depression years. If plans abandoned for this reason had been self-administered or financed under a deposit-administration group annuity contract, the employers might have been able to suspend or diminish their contributions during depression years, obviating the necessity of terminating the plans. The second cause of plan discontinuance has been consolidations and reorganizations. New managements may have been reluctant to assume a "fixed commitment" plan of a predecessor company. Other reasons for abandonment of plans are differences in thinking as to the desirability of formal pension procedures, or the existence of another pension plan of a different type in the company taking over the employer whose plan is abandoned. Advocates claim that a self-administered plan or a deposit-administration group annuity contract is so flexible as to form and financing that either can most readily be adjusted to any other plans which may exist in other companies with which the company may be consolidated or merged.

Coverage of Pensioners Already Retired.—If there is a pension roll that is being financed on a current pay-as-you-go basis when the plan is established, it frequently requires less immediate contributions to absorb these pension obligations under a self-administered fund than under an insured plan. Self-administration often gives the employer more time in which to finance the plan without interfering with payment of full benefits to all retired employees, past, present and future, directly from a pension trust fund.

Unusual Accrued Liability—Older-Age Employees.—Similarly, it is contended that if an employer has an unusually large initial accrued liability for past service benefits when a plan is established and he is

unable to finance these benefits in full by the time the employees retire and also meet current service benefit costs, such a plan could start with a self-administered or, perhaps, a deposit-administration group annuity plan. This will permit payment of full pension benefits to older employees as they retire and yet give the employer more time to fund his initial past service liability.

Disability Pensions.—A major attraction of self-administration is the opportunity to provide total and permanent disability pensions. This is a definite advantage because insurance companies have generally been unwilling to underwrite employee total disability pensions because of adverse experience with individual total disability policies. Total disability pensions can be financed by means of a supplemental funded procedure. In fact, supplemental self-administered total and permanent disability benefits may be added to existing self-administered or insured age retirement plans without disturbing their age retirement provisions.

Change of Financing Method.—It is generally easier to transfer from self-administration to group annuity underwriting than vice versa, because there is usually no provision for the transfer of reserves from the group annuity contract, and because most group annuity contracts provide for full vesting in employees of title to benefits already purchased on cessation of the group annuity purchase payments. For this reason, it is usually impracticable to change from group annuity to self-administration, or even to transfer from one group annuity insurance carrier to another.

Comparative Cost.—Another advantage claimed for self-administration is lower cost to the employer. Differences in initial cost are frequently attributable to differences in benefits and funding procedure. There are often basic differences in actuarial assumptions and in the timing of the contributions as between self-administered and insured plans. For example, the self-administered plan may assume 3% interest earnings while the insured plan may assume that only 2% will be earned, or one plan might assume high rates of mortality whereas another might take lower assumptions for this factor. Also, the self-administered plan may take an advance cost discount for severances, which is not done under typical insured plans.

Each self-administered pension case pays its own true cost, whereas under group annuity contracts there may be an averaging of costs for plans of a similar class, thereby leveling the net cost of plans after dividends or rate reductions. Insurance companies claim, however, that in general they strive to have each case reflect its own experience.

In the final analysis, it would appear that an employer would be better served if he gave the question of probable comparative cost less weight in selecting the financing method than other considerations which are important in carrying out the objectives of a pension plan.

ADVANTAGES AND DISADVANTAGES OF DEFERRED GROUP ANNUITIES.—Some of the arguments for and against deferred group annuities are as follows.

Third-Party Guarantees.—Advocates of group annuities claim that one of the disadvantages of a self-administered plan is that there are no third-party guarantees, leaving the employer in the position of having to

meet any shortages in the fund if experience proves less favorable than assumed under the initial actuarial assumptions. Underwriting by an insurance company assures payment of the benefits to the employees.

To this argument advocates of self-administration reply that if the fund is sufficiently large for **the law of averages** to operate, the history of properly administered funds has demonstrated their soundness and ability to provide benefits on schedule, especially if contributions are made to an independent trustee in amounts comparable to premiums payable to an insurance company, and if investments are similar to those in an insurance company's portfolio. They point out that administrative rules of the Bureau of Internal Revenue dealing with the permanence of plans as indicated by specified minimum contributions, notification where funds are invested in employer securities and the trustee's responsibility reassure employees on these points.

It is contended by some that plans covering a relatively small number of employees may be safely self-administered because there is no catastrophe hazard in providing age retirement benefits comparable to the hazard in providing death benefits. A large proportion of those covered could die suddenly, but no employees reach retirement age without warning. Furthermore, if there should be a deviation from the assumed mortality experience, it occurs over a period of time sufficient to allow for the financing of fund deficits.

The possibility that deficits may occur under self-administered financing, because of mortality and other experience less favorable to the fund than the original actuarial assumptions, may be offset by the fact that the premium rates under a group annuity contract are subject to change as to annuities purchased after the first 5 years. In the long run, the insurance company cost will reflect the plan's experience as to mortality, interest, and administrative expenses, so that it will be similar to that under a self-administered fund.

Employee Preference.—Group annuity advocates claim that employees prefer the assurance of receiving benefits from an insurance company. Self-administration advocates admit there is merit in this point but feel that there is satisfactory employee acceptance of a fund invested by an independent and competent trustee, and that the other advantages of self-administration are more important factors.

Responsibility for Employee Contributions.—Another advantage claimed by group annuity advocates is the avoidance of moral responsibility in the handling of employee contributions under a self-administered trust fund. The counter argument of self-administration advocates is that employee money can be segregated and invested separately, if desired, in United States government bonds. Furthermore, employee money can be segregated and used to purchase benefits from an insurance company and employer contributions can be self-administered.

Registration as a Securities Issue.—If employee contributions are made, the self-administered plan may require registration with the Securities and Exchange Commission, whereas no such registration is required for a group annuity plan. But advocates of self-administration point out that, in the first place, no registration is required if the employer pays the entire cost; secondly, that the jurisdiction and

authority of the Securities and Exchange Commission to require registration of these plans is not thoroughly established; thirdly, that such registration is not necessarily too onerous; and finally, that the problem can be avoided by placing employee money with an insurance company and investing employer money under self-administration.

Administrative Cost.—Advocates of group annuities claim that expenses of self-administration for trustee fees, actuarial fees, and so on may exceed corresponding amounts retained by the insurance company. It is countered that the cost of group annuities includes 8% of the gross premium as an initial loading, presumably for expenses. Besides, there are other expenses such as charges when annuities are cancelled on severance of employment. Also, the employer incurs some administration expense under an insured plan, similar to that under a self-administered plan, in connection with record keeping and making reports to the insurance company.

ADVANTAGES AND DISADVANTAGES OF DEPOSIT-ADMINISTRATION GROUP ANNUITY.—Compared to self-administration, advocates of deposit-administration group annuity financing claim, the investment risk is eliminated, the rate of interest is guaranteed, and the ultimate cost of the annuities to be purchased is known at least as to contributions during the first 5 years. If the plan is terminated, there is no problem of liquidating securities, possibly upon a declining market.

Compared to deferred group annuities, calculation of withdrawal credits and the withholding of surrender charges is avoided, since there is no direct application of funds to purchase deferred annuities, and the health of employees upon termination of employment has no significance. Another important advantage of the deposit-administration method is the fact that adjustments in the employer's cost on account of radical changes in any of the factors involved, such as major changes in salary scales, can be more readily spread as a level percentage of payroll over a longer period. A disadvantage as compared to deferred group annuity financing, however, is the fact that a plan financed through a deposit-administration contract, like self-administration, is not automatically and definitely funded as of any given date. The regular contribution of specified amounts or percentages of payroll to the fund does not guarantee that it will be sufficient to meet the cost of all benefits accrued under the plan.

ADVANTAGES AND DISADVANTAGES OF INDIVIDUAL RETIREMENT INCOME POLICIES.—Individual policies, it is claimed, are the only practicable method for cases too small for group annuity coverage, which usually requires 50 participants, or for self-administration based on the law of averages. Advocates of group annuities admit this, except where insurance companies offer group annuities for groups of less than 50 participants. Advocates of self-administration likewise recognize the hazards of self-administration for small groups after retirement. But many argue that the advantages of self-administration are as important, if not of greater importance, to a small employer. Also, under small plans favorable deviations from the assumed experience are just as likely to occur as unfavorable ones. Means can be found to offset the hazard of the lack of risk spread, such as the

use of very conservative actuarial assumptions, adjustment of contributions to offset unfavorable experience, or the use of self-administration prior to retirement and insurance company financing thereafter through the purchase of individual single-premium immediate annuities as each employee retires. The latter combination retains flexibility of employer contributions and most of the other advantages inherent in a self-administered plan, avoiding the disadvantages of individual retirement annuity policies.

Flexibility Through Borrowing.—Flexibility can be secured with individual policies through the right to borrow on policies to pay premiums in years when contributions may be reduced or suspended. But such borrowing could result in failure to provide benefits on schedule as they mature, which may affect employer-employee relations adversely and perhaps create a problem with the Bureau of Internal Revenue in view of PS No. 57, which requires payment of full employee benefits on schedule and no increase in the current unfunded past service liability as compared to the initial unfunded past service liability, except where the employer has suspended contributions because of demonstrated "business necessity."

Cost of Death Benefits.—A major criticism of retirement income with insurance policies is that the provision of vested death benefits generally increases employer costs from 60% to 100% as compared with the cost of a pure pension system which provides no death benefits from employer contributions. While death benefits are desirable, their cost may result in inadequate age and disability pensions.

Relationship of Death Benefits to Need.—An anomaly in the individual retirement income (with insurance) policy procedure is that death benefits tend to change in inverse ratio to the need for them. Under typical plans of this type, no death benefits are provided during a waiting period after employees are hired, usually 3 to 5 years, after which death benefits of employees who are insurable usually amount to about 3 years' salary. This is the case if a pension of 36% of salary is provided with the typical provision for insurance equal to 100 times the monthly pension. For typical employees, the coverage increases to a peak of about 4½ years' salary immediately before retirement, through substituting the cash value of the policy as the death benefit when it exceeds the face amount of insurance. Thus, coverage increases at a time when the employee's children have usually become self-supporting. The coverage drops to about 3.6 years' salary at retirement, and, under the usual 120 months' certain and for life annuity provision, subsequently decreases by 10% each year, until no death benefit coverage is provided 10 years after retirement.

The uninsurable participants in the same plan would receive death benefits dependent on their age as well as their years of premium-paying membership in the plan. For example, the uninsurable young man aged 30 at entry would accumulate about one-tenth of a year's salary each year. Thus it would require about 10 years of membership to build up 1 year's salary as his death benefit. An uninsurable older man, aged 55, would accumulate close to one-half year's salary as a death benefit per year, so that it would require but 2 years of membership to build up 1 year's salary as his death benefit.

Advocates of both group annuities and self-administration argue that individual policies carrying an insurance element should never be used where the group is large enough for some form of group underwriting (25 or 50 employees according to the state insurance law and insurance company rules), because of the effect on employee relations of denying insurance to those who, for reasons of health, cannot be insured under a plan using individual policies. The usual group life insurance plan on a 1-year renewable-term basis offers protection to all employees after 3, 6, or 12 months' service, giving insurance to the younger short-service employees who generally have the most acute dependency problems.

Costly Vesting.—There is a tendency toward more complete vesting of benefits under individual policy plans. This tendency increases the cost. The usual practice of turning over the policy to an employee who resigns or is discharged, to permit him to continue the insurance, creates the anomaly of giving departing employees cash values instead of deferred benefits, defeating the fundamental purpose of a pension plan. This situation is not encountered under typical self-administered or group annuity plans. While liberal vesting provisions upon severance of employment are desirable, they may give protection at a cost which the employer is not able or willing to assume. Under group annuity and self-administered plans, the vesting provisions are designed to provide retirement benefits for employees with long service who leave the company. In retirement income policies, life insurance protection favors earlier and more liberal vesting, to enable the departing employee to continue the life insurance.

Revision of Retirement Income Policy Plans.—Disadvantages of retirement income policies in pension plans can be partially or wholly eliminated. One way is to halt the use of retirement income policies, keeping in force only those already purchased. Only part of subsequent employer contributions need then be used to pay premiums on the old policies, the remainder of the contributions (usually up to the maximum deductible for tax purposes) being placed in a self-administered securities account in the pension trust fund to provide pensions either through self-administration, group annuities, or the purchase of annuities at retirement, or to pay premiums in years when other funds are not available.

Another way is to convert existing retirement income policies for insurable employees into ordinary life insurance policies in the same insurance company, dated back to the original age and date of issue. Suppose, for example, a pension plan is 4 years old, and a $10,000 retirement income policy was issued for an employee at age 40 on which four premiums have been paid. This policy would require an annual premium of, say, $556, and would have a current cash surrender value of $1,496. If this policy were converted into an ordinary life insurance policy as of age 40, the annual ordinary life premium would be $309, a reduction of $247 in annual premium, and the cash value of the converted ordinary life policy would be $539. The insurance company would be asked to refund to the trustee the difference between the current cash surrender values of the two policies, or $957. This $957 would be deposited in a supplemental self-administered pension trust fund invested in securities such as United States government bonds.

Thereafter, ordinary life insurance policies would be used for any death benefits for new participants and to cover salary increases for old participants, and the balance of employer contributions would be held in the self-administered account. At retirement, the pension provided for the employee would be obtained in part by applying the cash value of the ordinary life insurance policy under its annuity settlement option, the balance coming from the self-administered account. If desired, the balance of the pension could be purchased from the insurance company instead of being paid out of a self-administered fund, so that the entire pension would come from one source. Many insurance companies will accept the supplemental self-administered payment and issue the balance of the annuity at rates guaranteed when the ordinary life insurance is purchased.

Under this combination of ordinary life insurance and self-administration, every employee is not only assured his full pension at retirement if contributions are made as contemplated, but it will be possible for the employer to keep his costs lower or to provide larger pensions by savings anticipated from less liberal severance benefits, since severing employees will receive ordinary life insurance policies instead of higher cost retirement income policies. These savings can be increased by reducing the face amount of the ordinary life insurance. Usually, retirement income policies have a face amount 100 times the monthly retirement benefit, which would be equivalent to 3 years' salary on a 36% pension plan. The ordinary life insurance may be reduced to 2 years' salary or 1 year's salary, there being no need to relate the face amount of ordinary life insurance to the pension.

Cost If Coverage Is Extended.—Another objection to individual retirement income policies with insurance is that in many cases such policies are originally issued under plans with limited coverage, and the cost may become prohibitive when more participants are included. For example, a plan confined to employees having at least 5 years of service may have included only 10% of the total number of employees originally, but such employees may constitute 40% of the staff later. Employees returning from military service with full credit under the plan accentuated this tendency. Expansion of coverage may also result from union requests for extension to hourly workers of a plan previously confined to salaried employees or those earning over $3,600 per year. Consolidations or mergers may bring an influx of new participants. The increase in cost due to expansion of coverage is much greater if the plan utilizes individual policies, not only because of the tendency to provide costly death benefits, but also because of the further tendency to vest these policies in participants upon severance.

Relationship of Benefits to Earnings.—Another objection to the use of individual policies is that salary increases and decreases can only be made operative within the available minimum units of, say, $500 or $1,000 face amount of insurance, or $5 or $10 a month of pension benefits. Under self-administration or group annuities, benefits can be made to follow earnings to a penny. This objection is most serious for low-paid groups.

Simplicity of Administration.—An advantage of individual policies is that a policy is issued on the life of each participant, and a descriptive

certificate describing benefits is given him. Upon severance, retirement, or death, the policy is usually delivered to the participant or his beneficiary.

Cost Guarantee.—The annual premium cost is guaranteed for the life of each individual policy, whereas there is no guarantee as to annuity costs after the first 5 years under a group annuity contract and the cost of self-administration will vary with actual experience. On the other hand, over-all higher costs of these plans offset the value of the rate guaranty. Furthermore, there is no assurance that individual contracts of a particular type will be available in future years with the same provisions and rates, which may lead to differences in severance benefits, settlement options, and so on, between participants entering the plan in different years.

Liberal Settlement Options.—Under individual policies there are usually more liberal settlement options than with group annuity financing. For example, the joint annuitant option may be elected at any time before retirement, whereas a group annuity contract usually bars election of this option within 5 years before the retirement date, unless the employee is in good health.

ADVANTAGES AND DISADVANTAGES OF GROUP PERMANENT RETIREMENT INCOME.—Advocates of group permanent retirement income policy plans claim that they retain the advantages of the lifetime rate guarantee offered by individual policies and, at the same time, overcome the disadvantages of individual selection on the basis of health and of extra loading charges for expenses. But critics argue that group permanent retirement income plans are subject to most of the objections applicable to individual retirement income policies, particularly the level premium method of financing, which does not allow as much flexibility in making contributions as do self-administration and group annuity financing. They also point out that the use of employer contributions to provide death benefits and more liberal severance benefits generally results in a cost increase of some 60% to 100%, as in the case of individual retirement income policies.

Group permanent retirement income contracts generally offer more liberal terms concerning the election of optional benefit forms than group annuity underwriting.

ADVANTAGES AND DISADVANTAGES OF COMBINATION PLANS.—To minimize the disadvantages of the several types of pension financing, and to accomplish special objectives, employers sometimes use a combination of funding methods.

An example of a combination plan to keep the initial cost as low as possible under plans involving employee contributions for future service benefits is to **self-administer pensions** for past service and to employ **group annuity** financing for future service benefits provided in part out of employee contributions.

Some of the disadvantages of using individual level premium policies may be obviated by accumulating the contributions in a self-administered trust fund **until retirement,** when individual single-premium immediate annuity contracts are purchased.

Another procedure which is gaining in popularity and bids fair to be used in place of retirement income policies is to combine **self-administration** with **ordinary life insurance.** Either individual ordinary life policies or group permanent ordinary life may be used. Such policies provide part of the pension benefits purchased at retirement with the cash values. The balance of the pension benefits, in accordance with the plan formula, may be provided by making contributions into a self-administered fund. Sometimes, however, the ordinary life insurance policy contains a conversion privilege whereby it may be converted into a policy providing the full annuity specified by the plan, the sum needed for conversion being drawn out of the self-administered fund. This plan has the contribution flexibility of self-administration before retirement and is fully insured after retirement, avoiding the problem of erratic mortality among annuitants.

A combination similar to the foregoing is that of **deposit-administration group annuity** combined with **group permanent ordinary life insurance.**

Pension Plan Provisions

ELIGIBILITY FOR MEMBERSHIP.—Important provisions bearing on this are as follows:

Full Coverage.—The inclusion of all regular employees is highly desirable in order completely to solve the retirement problem.

Years of Service Requirement.—A common eligibility provision restricts participation to employees who have completed a specified period of service. Aside from reducing the benefits and the cost, this restriction also eliminates employees whose employment is most likely to terminate, thereby reducing record keeping and administrative expenses. A usual requirement limits eligibility to employees with not less than 1 year of service. The least liberal requirements do not often exceed 5 years of employment before an employee becomes eligible for membership in the plan.

Minimum Age Requirement.—Participation is sometimes restricted by excluding employees who have not reached a specified age. Exclusion of younger employees reduces record keeping, and requires contributions over a smaller number of years. However, it may defer part of the true cost of the plan until employees become eligible and reduce benefits drastically, since retroactive credits are not given as a rule. Another reason for a minimum age requirement under contributory plans is that young employees may not wish to participate, with retirement many years in the future. If they become eligible at an older age, they are more likely to join the plan, since they will then know that they will remain with the employer and retirement security will have assumed greater importance. A fairly long service requirement for eligibility gives the same effect. Minimum age requirements are more general in insured plans. In self-administered plans, there is less purpose in a minimum age requirement unless the objective is to reduce the cost by limiting the number of years for which pension credit is given.

Maximum Age Limitation.—Employees who have reached a stated maximum age are sometimes excluded to avoid high initial past service costs and the need for contributions which exceed amounts deductible for tax purposes. An example is the exclusion of employees over age 65. Such employees are usually carried on the payroll as active or retired employees. Another example is the use of age 55 as the limit, with age 65 as the normal retirement age. The latter rule results in a gap in the plan for 10 years, and in failure to provide for retirement of older employees who have usually contributed most to the success of the business. Provisions of this type are more frequently found in plans using retirement income policies of insurance companies that require at least 10 annual premiums under such policies. Advocates of insured financing contend that in the long run exclusion of over-age employees is not a material point because such employees can be pensioned on a current pay-as-you-go basis. But the employer is placed at a disadvantage because he is carrying the double load of funding his pension plan and paying pensions to over-age employees in bad years as well as in good, whereas under the self-administered plan he merely has the one fund to support on a flexible contributions basis. Also, over-age employees are obviously better off because managements, stockholders, consolidations, reorganizations or depression cycles cannot deprive them of the protection of the self-administered fund.

Effect on Eligibility of Financing Method.—Flexibility of employer contributions without interference with the provision of pensions on schedule is also sought through eligibility for membership provisions. Self-administration facilitates the inclusion of employees over the normal retirement age and retired employees who are on the pension roll at the time the plan begins. If self-administered financing is not used, the likelihood of excluding aged employees increases in the following order: deposit-administration group annuity, typical deferred group annuity (with past service benefits financed on the oldest-first principle), level premium retirement income policy (individual policies or group permanent contract).

Salaried Employees Only.—Where management decides not to provide coverage for all employees, it is usual to confine the plan to the salaried group. Some reasons for this are:

a. In some situations management considers that the union organization of the wage earners has or will obtain all that can be allocated to them in the form of compensation and other benefits, and hence only the salaried (nonunion) employees can be included.
b. The executive and higher-ranking members of the personnel upon whom rest decisions of policy, and upon whom depends the success of the company, are in the salaried group.

Higher-Paid Employees Only.—It has been decided in many cases to limit eligibility to employees earning over a specified amount, usually $3,600 per year, because of the lack of Social Security benefits on earnings in excess of this limit.

A factor influencing a decision to exclude lower-paid employees, such as those earning less than $3,600 per year, is a requirement of the Bureau of Internal Revenue that the plan provide no more benefit per dollar of earnings in excess of the minimum specified than the highest paid

of those excluded receive under the Social Security Act, the criterion used being 150% of the primary insurance benefits. For this reason, pensions provided for eligible employees (e.g., those earning over $3,600 per year) are generally too low to provide adequate retirement incomes, causing difficulty in effecting retirements in actual practice.

Thus, the employer finds that the Social Security Act usually does not solve his problem of superannuated or disabled employees earning less than $3,600 per year, while his own "over $3,600" plan is likewise inadequate for employees earning more than $3,600. The employer may be asked to keep employees on the payroll or to provide them with suitable pensions. Plans providing no benefits for lower-paid employees may hasten the passage of additional legislation liberalizing Social Security benefits or union demands for contributions to union-sponsored pension plans.

Effect of Restrictions.—A 5-year waiting period for membership may exclude as many as 80% of the regular employees. A plan which restricts membership to those with 5 or more years of service and earning over $3,600 per year generally excludes over 90%. A plan which confines membership to employees with 5 or more years of service who are compensated exclusively on a salary basis and earning over $3,600 per year may exclude 95% to 99% from membership. Such plans leave unsolved the problem of excluded employees who become superannuated or disabled.

Effect of Labor Turnover.—An objection frequently raised to inclusion of nonsalaried employees is that turnover within this group is very high. However, if turnover is high, it means that the ultimate pension cost will be correspondingly low. For example, if only 1% of these employees are likely to become a superannuation or disability problem, then the plan may be designed to provide benefits only for that small group of survivors. On the other hand, if 10% of the nonsalaried employees remain to become a superannuation or disability retirement problem, the employer will be prepared to meet it under a funded plan. Stated differently, an employer can establish a self-administered or group annuity pension plan that will provide pensions only for surviving employees, with no ultimate cost for employees who leave before becoming superannuated or disabled.

Interrelationship of Eligibility and Financing.—The question of eligibility is related to the method of financing and the vested rights to benefits granted employees. If an employer wishes to provide benefits only for long-service, salaried employees earning over $3,600 per year, a provision for vested rights may be preferred under which title to benefits provided by employer contributions will be vested in those employees in the event of severance of employment, contingent only on completion of a short period of service or membership in the plan. Or there may be complete vesting from the outset. Having arrived at this decision, the employer could use either a group annuity contract or individual retirement annuities (with or without insurance), or the latter's equivalent under a group permanent retirement annuity plan, for each of these insured types of financing allocates the employer's contributions to the specific benefit of each named participant. However, if the employer desires a plan for all regular employees so that survivors may be entitled to an age or disability pension, and a high future turn-

over is expected, he will generally find that a group annuity contract, self-administration, or a combination of these is better. The individual retirement income or the group permanent retirement income policy methods of financing do not lend themselves to full-coverage, high-turnover types of plans, not only because of inflexible contribution and benefit provisions, but because of the high cost of the death benefits, vested rights, and surrender charges involved.

Employers frequently confine their investigations to one type of funding method, such as individual retirement income contracts or the practical equivalent of a group permanent retirement income plan, and as a result have unwittingly adopted a plan confined to the higher-paid, low-turnover group, such as employees earning salaries over $3,600 per year who have at least 5 years of service. This "puts the cart before the horse" by allowing limitations of the financing method to control eligibility provisions.

NORMAL RETIREMENT.—Certain age provisions are important as follows:

Age 65 Usual.—Because Social Security benefits begin at age 65 and are forfeited for any month thereafter in which $50 or more is earned in covered employment, most pension plans specify age 65 as the normal retirement age. While the age at which employee efficiency declines to a point making retirement desirable varies greatly with individuals, and sometimes depends upon the character of employment, there is general agreement that age 65 is typical for most employees and that retention in service beyond that age is undesirable under ordinary circumstances.

A retirement date commonly used is the first of the month following attainment of age 65. The anniversary date of the plan nearest age 65 is also frequently employed, particularly if retirement income policies are used as the financing vehicle.

Earlier Retirement Age for Women.—Some plans specify a lower retirement age for women, such as 60 or 55. The number of female employees and the nature of the business are determining factors. If adequate benefits are provided, this practice may increase the cost of the plan substantially. Women will collect pensions over a longer period of time, not only because of their earlier retirement but because they commonly live longer. The lack of federal benefits until age 65 is reached is also an influencing factor. This problem is sometimes partially met by adjusting the pension paid before and after age 65 to provide a constant income including federal benefits. A smaller pension will be paid women employees because they will have fewer years of service for which benefits are credited, unless they are accorded special treatment in the benefit formula. Some employers do not believe that this is a serious consideration, however, because women generally have smaller family obligations than men.

Staggered Retirement Ages.—Instead of excluding older employees from coverage, some plans require a minimum number of years of membership under the plan before retirement, such as 10, so that employees aged 56 at commencement of the plan retire at age 66, those aged 57 retire at age 67, etc. Such a provision frequently is coupled with provision for immediate retirement of those who have reached a specified

age, such as 70. The treatment of the older employees is closely related to the type of funding. This requirement postpones the time when the superannuation problem will be solved and the full advantages of the plan realized.

EARLY RETIREMENT.—Many plans allow employees to retire at early ages, such as within 10 years before the normal retirement date, on reduced actuarially equivalent annuities, subject to approval of the employer or the pension committee. This enables an employer to retire employees who may be disabled or who, for any of a variety of reasons, should be retired before the normal retirement date. Some plans permit early retirement at any age. The pensions so provided are, however, usually so low as to be unsatisfactory. For example, a male employee who would have been entitled to $100 a month pension if he had worked to age 65 and retired after 35 years of service might find that his actuarially reduced early retirement benefit would be only $33.94 per month at age 55, or $57.45 at age 60. These figures apply under a plan providing benefits, expressed as a percentage of pay for each year of service, financed entirely by the employer, with annuity costs based on the 1937 Standard Annuity Table with 2½% interest. A constant salary is assumed. The sharp reduction in income if retirement occurs many years before the normal retirement date is one reason for the common provision restricting early retirement to the 10-year period before the normal retirement date. Some plans allow employees who retire before age 65 to select an adjusted annuity so that their total income, including federal primary insurance benefits, will be constant both before and after age 65, when the federal benefit begins.

DEFERRED RETIREMENT.—It is usual to provide that, with the consent of the employer, an employee may remain in active service after the normal retirement date. Unless properly administered, however, such a provision may lead to many late retirements, thereby defeating the basic objectives of the plan. To avoid pressure on supervisors and executives by individuals who wish to remain in service, which is particularly apt to occur if the pensions are low in relation to final salary at normal retirement age, it is sometimes specified that retention after the normal retirement date is permissible only with the year-to-year consent of the pension committee or the board of directors. As a rule, no credit is given for service after the normal retirement date in computing retirement benefits. To allow such credit would encourage late retirement, thereby tending to defeat the purposes of the plan.

Under insured plans, contributions generally cease and the annuity payments begin on the normal retirement date, although some group annuity plans provide that any employee who remains in active service after the normal retirement date may leave his pension payments with the insurance company at interest to be used to purchase additional retirement income when he actually retires. Under self-administered plans, the usual practice is to make no pension payments until actual retirement.

PENSION BENEFIT PAYMENTS.—Determination of the formula for computing pensions payable to employees reaching the normal retirement date involves a number of considerations varying with the

circumstances and desires of each employer. Cost considerations have frequently resulted in pensions so low as to cause employees to resist retirement, making the plan ineffective. It is obvious that if pensions are too low, so that retirements do not occur, the purposes of the plan have not been fulfilled. On the other hand, pensions should not be too large because the expense of the plan will then be unduly burdensome.

Percentage of Pay per Year of Service Formula.—Before the Social Security Act came into operation, pensions provided under formal plans were generally expressed as a uniform percentage of employee earnings for each year of credited service. Rates ranged from 1% to 2%. For example, 1% was generally used in railroad retirement plans, so that an employee retiring after, say, 35 years of service received a pension of 35% of earnings, the earnings basis generally being the average received during the last 10 years of service. Plans in other industries tended to be more generous, particularly where labor costs were a relatively lower percentage of total costs. Typical oil company plans, for example, based pensions on 2% of earnings for each year of credited service.

Lower Pensions on Earnings Covered by Social Security.—Following enactment of the Social Security Act, many plans were revised to reduce pensions credited on the first $3,000 of annual earnings which were subject to the Act. Plans formerly using a 2% factor were generally changed to provide 1% of the first $3,000 of annual earnings plus 2% of the excess. Plans that had uniformly provided 1½% of pay per year of service were generally changed to provide ¾ of 1% of the first $3,000 and 1½% of the excess for each year of credited service. In 1950, the Social Security Act was amended to provide benefits on the first $3,600 of annual earnings. Many plans then in existence were amended merely to shift over to $3,600, as the breaking point for providing higher benefits on the excess earnings and plans installed subsequent to the 1950 amendment of Social Security are using the new covered compensation level when a differential in benefit formula is utilized.

It is still fairly common, however, to use a uniform percentage of all earnings per year of service, with the thought that higher-paid employees are better able to take care of their needs after retirement. For example, a number of plans financed entirely at employer expense specify pensions amounting to 1% of earnings per year of service for all participants as a supplement to Social Security benefits.

To provide more uniform total retirement incomes, including federal benefits, some plans grant a rising percentage of pay per year of service up to $3,600 of earnings per year; for example, ¾ of 1% of the first $1,200, plus 1% of the next $2,400, plus 1½% of the excess above $3,600. A few plans exclude credit on the first $100 of monthly earnings for the same reason. These procedures sometimes result in inadequate total retirement incomes for lower-paid employees, because they are close to the subsistence level and consequently require a higher retirement income relative to earnings. Thus, an employee earning $100 per month may not be able to retire on less than two-thirds of his pay (including federal benefits), whereas higher-compensated employees might normally be expected to retire with less hardship on a total income bearing a lower relationship to pay. If the plan is of the money-purchase type with employer contributions fixed as a percentage of employee earnings, the contributions frequently vary with employee earnings brackets to

make the pensions approximate the desired result when added to the federal benefits. Money-purchase plans are discussed below.

Social Security Benefits.—The federal old age benefits vary considerably on a percentage of pay per year of coverage basis, so that private plans providing a uniform percentage of pay on the first $3,600 of annual earnings result in total private and government benefits that favor lower-paid employees, in whose favor the federal benefits are weighted. The federal primary insurance benefit payable to a qualified individual is generally computed by taking 50% of the first $100 of his average monthly wage while in covered employment since January 1, 1951, plus 15% of the next $200. The federal benefit on the first $100 of the average monthly wage is thus credited at a rate that is 3⅓ times the rate payable on the next $200. (Possible 1952 Social Security amendments may provide additional benefits of $5 per month or 12½%, whichever is larger.)

If a retired employee has a wife who is aged 65 or over, a wife's insurance benefit equal to 50% of the employee's primary insurance benefit (or any larger benefit to which the wife may be entitled on account of her own coverage) becomes payable. Since wives of employees retiring at 65 generally average 5 or 6 years younger, Social Security benefits payable to wives are usually disregarded in considering the adequacy of pensions provided under a private plan, as are benefits payable for dependent children and parents of retired employees.

Direct Deduction of Social Security Benefits.—A number of plans, particularly those under which employees make no contributions, provide for direct deduction of Social Security primary insurance benefits from pensions otherwise provided under the plan. Because the tax for such benefits is levied equally on employees and employers, however, some plans deduct only one-half of the primary insurance benefits.

The practice of making a direct deduction for government benefits has a number of disadvantages. Employees are likely to criticize a procedure under which the employer appears to take credit for benefits the employees know are provided in part by their contributions and in part perhaps by government subsidy. Difficulty will also arise in the event of changes in the government benefit formula. Since government benefits depend entirely on the employee's employment and wage history, they cannot be accurately determined until he retires, leading to difficulty in accurately computing the cost of the pension credits accumulating under the plan. For these reasons, a majority of funded pension plans contain a pension formula that does not directly include government benefits as a factor, but provides pensions that are payable separate from and in addition to Social Security benefits.

Integration with Federal Benefits.—Under some pension plans, lower-paid employees are excluded on the premise that the government has taken over the problem of providing for retirement of such employees. Sometimes a plan excluding employees earning less than $3,600 per year has been adopted and announced as constituting merely a first step in the development of a comprehensive pension program. If the plan provides no pension on the first $3,600 of annual earnings, however, it cannot solve the retirement problem realistically (1) because the federal benefits alone are inadequate for most employees earning less than $3,600 per year, and (2) because of the Bureau of Internal Revenue's position that if pensions are provided only for the higher-paid employees the pensions must **integrate** with the federal benefits, i.e., pensions based

on earnings in excess of the amount specified in the plan must be relatively no greater than 150% of the federal primary insurance benefits payable to the highest-paid excluded employees.

Mimeograph No. 6641 issued by the Commissioner of Internal Revenue on May 3, 1951 prescribes detailed tests to be used in determining whether the required integration exists with respect to Social Security benefits provided by the Social Security Act as amended in 1950. This Mimeograph succeeds Mimeograph 5539 which covered integration with Social Security benefits in effect prior to the 1950 amendment. Generally, a plan will also be integrated, even if it does not completely comply with the rules set forth in Mimeograph No. 6641, if it satisfies the requirements of Mimeograph 5539, regardless of whether it was put into effect before or after the enactment of the Social Security Act Amendment of 1950. Under one of the formulas which may not be exceeded, pensions under plans covering only employees earning in excess of $3,600 per year may not be greater than 37½% of the excess over $3,600 of earnings per year, with a reduction of 2½% for each year of service less than 15 at retirement. Another permissible formula given is a maximum of 1¼% of the excess over $3,600 for each year of future service (plus .1% for each 1% of employee contributions) and ⅝ of 1% for each year of past service before the date of plan establishment. If the plan does not exclude lower-paid employees, but gives them lower credits than persons in the higher earnings brackets, a similar test applies, i.e., the difference in pensions credited on the earnings in excess of $3,600 should not exceed 1¼% for each year of future service nor ⅝ of 1% for each year of past service. The percentages indicated above are applicable if no death benefits are provided by the plan either before or after retirement. The Mimeograph provides for a reduction in the permissible percentages on earnings in excess of $3,600 when various types of death benefits are provided.

For plans excluding employees earning less than some amount below $3,600 per year, the Mimeograph outlines the method of computing the applicable limits for past and future service benefits on the earnings between the lower considered earnings level and $3,600, and earnings in excess of $3,600.

Earnings Increase to Covered Level.—One of the difficulties encountered in the operation of plans granting pensions only on the excess of earnings above $3,600 per year has been the very low pensions provided for long-service employees who enter the plan late in life when their earnings rise above $3,600. If this occurs after the plan has been established, there is generally no provision for the employee's past service, and his future service pension may be quite small.

Earnings Base.—The earnings base to which the pension percentage is to be applied is an important consideration. Most of the early, unfunded pension plans used the final rate of employee earnings as the basis for computing pensions, or an average of the earnings during the final or the highest-paid 5 or 10 years of service, to avoid impairment of pensions that might be caused by earnings decreases that may occur late in life as a result of declining employee efficiency. The use of final or final average earnings is desirable to make the pensions bear as close a relationship as possible to living standards at retirement. However, if final or final average earnings are used, the cost of benefits cannot be computed as accurately as if pensions are based on the actual amount earned during each year of service (average earnings basis), because any assumed rate of final earnings may not be realized in actual practice. For this reason, insurance companies generally will not underwrite the cost of pensions based on final or final average employee earnings under

group annuity contracts, but there are many instances of self-administered plans in which pensions are based on final earnings or an average of final earnings during the last years of service, the cost sometimes being estimated in accordance with an assumed scale of salary increases. Under plans that credit pensions on the basis of actual earnings for future service, it is common practice to compute past service pensions on the rate of earnings as of the date of the plan's establishment, rather than on past average earnings, because past earnings records are not available in suitable form or because of a desire to provide pensions related as closely as is feasible to the standard of living before retirement.

If there are employees covered by the plan who are compensated on a fluctuating basis, such as salesmen on commission, provision is frequently made for the use of an average of past actual earnings over a designated number of years, such as 5, 7, or even 10, as a basis for computing past service pensions. If some employees are paid on a piecework or other incentive basis of compensation, it is common to use an average of their actual earnings over a period of weeks or months prior to the establishment of the plan to determine past service pensions.

Overtime earnings are generally excluded from the earnings base because such earnings are irregular and are not usually considered a proper gauge for determining the employee's standard of living. Bonus payments, although not generally included in earnings used for pension computation purposes, have in some cases been included where they are fixed in accordance with a predetermined formula. Inclusion of discretionary bonus payments may be considered by the Bureau of Internal Revenue as introducing the possibility of prohibited discrimination in favor of highly compensated employees.

Past Service Pensions.—Past service pensions are frequently credited at a lower rate than future service pensions to hold down past service cost, and because past service pensions are generally based on employee earnings as of the date of establishing the plan rather than on the lower average of past earnings. The cost may be further reduced by eliminating credit for past service before a stated age, such as 25, 30, or 35, or credit may be eliminated for an initial period of service. These restrictions frequently correspond to eligibility requirements for coverage by the plan. A minimum age restriction for eligibility and past service pension computation purposes sometimes tends to engender dissatisfaction on the part of younger employees who may feel discriminated against by reason of the fact that their first years of service are not credited, whereas the first years of service of employees hired at older ages are recognized for the purposes of the plan, particularly because it often cuts off an important portion of the total benefits that would otherwise be payable to long service employees.

Contributions to meet the cost of past service pensions may be spread over a period of years, the only restriction being that the employer may not deduct from his income for federal tax purposes in any one year more than 10% of the cost of past service pensions. If more than this 10% is contributed in any one year, the excess constitutes a carry-over deduction which must be taken in the next ensuing year or years in which the maximum tax deduction is not otherwise availed of. Employers usually do not contribute more than 10% of the original past

service benefit cost in any one year because the subsequent year or years in which less than 10% is contributed may be a loss year or years, for which no tax benefits are available. In this event, the employer may lose the benefit of any tax deduction with respect to the excess contribution previously made for which no deduction was allowed, except for the carry-back and carry-forward provisions of the tax law. Employer contributions for pensions provided for current service are fully deductible from employer income for the taxable year in which paid.

Employers sometimes pay the full past service cost in one sum and carry over the tax deductions because subsequent contributions for future service benefits are reduced by the amount of withdrawal credits applied to meet future service costs, and because interest earned on the past service contribution is tax free as part of a tax-exempt qualified trust fund if the plan is self-administered, or following payment to an insurance company if the plan is insured. Employers on the accrual basis of accounting may make a deductible contribution with respect to a taxable year within 60 days after the end of that year if the contribution is properly accrued before the close of the year, the plan is established and there is a valid trust or group annuity contract in existence during the year.

Maximum Pensions.—Employers may establish pension ceilings, either by limiting the dollar amount of pensions or limiting the compensation on which pensions are credited. The wisdom of maximum pensions is being questioned for a number of reasons. The first is that the cost of superannuation strikes heaviest if pensions are so small as to discourage retirement by executives. If they do not retire, promotions are blocked and younger employees become dissatisfied. Very high personal income taxes have made it most difficult for higher-paid employees to accumulate retirement reserves from savings. The need for adequate pensions relative to compensation is, therefore, as vital for top management as for rank-and-file employees. A low pension ceiling forces many employers to pay costly discretionary supplemental pensions financed on a pay-as-you-go basis. Removal of a maximum on pensions usually increases the total cost of the plan by only a comparatively small amount.

Minimum Pensions.—These have assumed importance during the past few years as a result of union negotiations on pensions. Prior to the pressure imposed by the unions for minimum pensions, some employers placed a floor under pension benefits so that no employee would be expected to retire on a pension of less than $10 or $20 per month in addition to Social Security benefits, but many felt that all employees should be treated uniformly on the basis of earnings and length of service. Minimum pensions were quite common in plans using individual policies because of the minimum unit requirements of the insurance company. Minimum pensions established recently have generally been of the flat-benefit type, ranging from $100 per month to $125 per month after 25 or 30 years of service, including primary Social Security benefits, with benefits reduced for less years of service at retirement than specified.

Limitation on 25 Highest-Paid Employees If Plan Is Terminated.—To prevent the possibility of discrimination if a pension plan is terminated or its full current cost is not met within 10 years after its establishment, the Commissioner of Internal Revenue in Mimeograph 5717,

issued July 13, 1944, limited employer contributions that may be used in such event for the benefit of any of the 25 highest-paid employees on date of plan's establishment whose annual retirement benefits are anticipated to exceed $1,500 per year within the first 10 years of the plan.

The employer contributions that may be used for the benefit of any such employees, if the plan is terminated or its current cost is not met within the initial 10-year period, must be restricted to the greater of either (1) $20,000, or (2) 20% of the employee's annual compensation, or $10,000, whichever is less, multiplied by the number of years the plan has operated. Plans usually must give effect to this limitation to secure Bureau approval of the plan under section 165(a). The compensation on which the employer contribution limitation is based may be the average of the regular compensation in the 5 preceding years, or the last annual compensation if it is substantially the same.

The limitation has no effect on benefits that may be paid to employees retired under the plan prior to discontinuance or failure to meet the full current cost. Thus, employees retired during the first 10 years of the plan may be paid their full retirement benefits, and they will be affected only with respect to benefits paid after the plan is discontinued or after its full current cost has not been met, to the extent necessary to give effect to the limitation.

If the limitation becomes effective, any employer contributions made for affected employees in excess of those allowed by the limitation must be reapplied in a nondiscriminatory manner for the benefit of employees other than those in the restricted group. If a plan is changed so as to increase substantially the extent of possible discrimination, a new 10-year period of benefit restriction may start from the date of the change.

It may be observed that this Mimeograph 5717 was followed by PS No. 57, issued on August 5, 1946, which invokes possible retroactive tax penalties on the employer, the employees, and the trust if the employer fails to contribute the full current costs of the plan (including the cost of current service benefits plus amounts required to prevent the unfunded accrued liability for past service benefits from increasing). Taken together, these two rulings indicate possible tax penalties to all participants if a plan is disqualified and rights are nonforfeitable, and the benefits of the 25 highest-paid employees are not diminished if employer contributions are not made as specified.

DISABILITY PENSION BENEFITS.—Under many plans the only benefits available for disabled employees are the reduced actuarially equivalent age retirement pensions. These benefits are generally too small for an effective total and permanent disability pension.

For example, a male who would have received $100 a month if he had worked to retirement at age 65, after 35 years of credited service, would find his monthly disability pension would be: At age 45, $11.52; at age 50, $20.00; at age 55, $33.94; at age 60, $57.45. (These figures apply to a plan providing benefits expressed as a percentage of pay for each year of service, financed entirely by the employer, using rates based on the 1937 Standard Annuity Table with 2½% interest, assuming a constant salary.) It should be noted that the present Social Security Act provides no disability benefits (except the benefits payable after age 65). Consequently, some form of supplemental disability benefit is necessary.

Since insurance companies will not generally underwrite additional pensions for disabled employees except on the basis of annuity costs

applicable to employees retiring in ordinary health, practically all insured plans provide no supplemental pensions for totally and permanently disabled employees other than the actuarially reduced age pensions. However, it is becoming more frequent under self-administered plans to provide pensions for employees who become totally and permanently disabled. Usually there is a minimum eligibility period, such as 10 or 15 years of service. The benefit is based on a percentage of pay for each year of service from the date of employment to the date of disability. In addition, some plans provide minimum pensions for disability, such as 25% of pay but not more than the pension that would have been accumulated if the employee had remained in service to the normal retirement date. As a result of recent union negotiations, minimum disability benefits have been included in many plans, such as $50 per month to age 65. This type of minimum is usually included in a plan which provides an age retirement minimum benefit, such as $100 a month after 25 years of service, including Social Security, and the applicable minimum disability benefit after age 65 is based upon a recomputation at age 65, using the age retirement minimum benefit formula. Amounts payable under workmen's compensation laws may be deducted from the benefits otherwise payable. Disability pensions may be financed out of the general fund established under the plan or a separate fund or account may be established for this purpose. It is usual to include a specific definition of total and permanent disability. A medical certificate stating that the disability is total and likely to be permanent is generally required, and periodic physical examinations are called for. Where desired, it is provided that adverse disability pension benefit experience will not impair the age retirement fund.

BENEFITS FOR SEVERED EMPLOYEES.—These provisions involve certain questions of vesting and return of contributions such as:

Vested Benefit Rights.—The vesting of title to benefits for employees whose service terminates before the qualifications for retirement have been met creates problems. For economy or other reasons, some employers provide no vesting of benefits financed with employer contributions except upon retirement, including approved early retirement and retirement because of total and permanent disability. Employees, on the other hand, prefer full vesting of benefits provided by employer contributions on termination of service at any time and for any reason. The extent to which vesting is to be provided under the plan is one of the major decisions an employer must make.

The cost of such severance benefits must be considered in the light of the basic purpose of the plan and the amount the employer is able and willing to contribute. The ultimate cost of a liberal vesting provision may result in inadequate pensions, since most of the employer's contributions may be used up to finance benefits for employees who leave before they become superannuated or disabled. The proportion of the participants who leave before retirement is generally much greater than the proportion who remain. The granting of title to employer-financed benefits after many years of service is less expensive, since there are likely to be fewer terminations after as much as, say, 20 years of service, or after 20 years of service and attainment of age 50 or 55, although the cost per employee is greater than for a short-service employee.

Vesting of Retirement Income Policies.—Where retirement income policies are used (either individual or group permanent) and vested rights are granted, the policies are usually delivered to departing employees who then have all ownership rights, including the privilege of surrendering them for their cash value. If the policy contains an element of life insurance, the cash value constitutes taxable income to the severing employee. But if the policy is an annuity contract, only actual surrender results in taxable income to the severing employee. Under some plans, restrictions are included to preclude payment of more than a fraction, such as one-fifth, of the cash surrender value to the terminated employee in any one year.

Vesting in the Form of Cash.—It is undesirable to allow departing employees who have vested rights to receive cash representing the employer contributions made for them, in lieu of the retirement benefits to which they would otherwise be entitled, except in settlement of very small pension amounts. Such a practice defeats the basic purpose of the plan, which is to provide security following retirement. It may also encourage employees to leave, possibly to enter the service of a competitor. Under plans which are self-administered or underwritten by a group annuity contract, employees leaving the company's employ before retirement qualifications have been met obtain vested rights only to deferred annuities, beginning when they reach the normal retirement date, although the right is sometimes given the terminating employee to have his vested annuity begin earlier in an actuarially reduced amount.

Vesting of Past Service Benefits.—Vesting of annuities frequently differs as regards annuities for service before and after the date of establishment of the plan. A number of years of membership in the plan are sometimes required for the vesting of past service annuities, especially under contributory plans, to preclude employees from joining the plan and leaving shortly thereafter, taking with them title to full benefits, financed entirely at employer expense, for their past service.

Return of Employee Contributions.—If employee contributions are made under the plan, the amount the employee has contributed is returned, usually with interest, on termination of employment. In group annuity or self-administered plans, any vested right to benefits financed with employer contributions is usually contingent upon the employee not withdrawing his own contributions. But most group annuity contracts provide that if the contract is discontinued as to further benefit purchases, employees leaving the service thereafter may withdraw their own contributions while retaining title to the deferred annuities provided by contributions of the employer.

DEATH BENEFITS.—Most self-administered and group annuity plans provide small or no death benefits out of employer contributions to a pension plan. Death benefits provided under an employee benefit program are usually in the form of supplemental life insurance, such as group term life insurance, group permanent ordinary life or group permanent paid-up life, the latter two types being a recent development to provide permanent paid-up insurance protection on termination of employment or after retirement. The typical individual retirement income policy with insurance pension trust plan (or the practically equiva-

lent group permanent retirement income with insurance plan) provides employees with death benefits financed by employer contributions. Such a program usually increases employer costs 60 to 100% as compared to a pension plan without death benefits financed with employer contributions.

Return of Employee Contributions on Death.—If employee contributions that are not applied specifically to purchase life insurance are made under a pension plan, they are usually returned to the employee's beneficiary with interest if the employee dies before retirement. On death after retirement, the employee's beneficiary normally receives the difference between the death benefit that would have been payable had the employee died immediately before retirement and the pension payments he has received after retirement.

Most plans allow employees to elect optional annuity forms, such as a reduced actuarially equivalent joint and survivor annuity providing for continuance of all or a fraction of the employee's reduced annuity during the lifetime of a surviving joint annuitant, or sometimes a larger life annuity with no benefit on death following retirement.

EMPLOYER CONTRIBUTIONS.—Employer contributions may be determined under any one of several deferred annuity accounting methods.

Self-Administered Plans—Level Percentage of Payroll Method.—Under self-administered plans, any of several actuarially acceptable methods of cost computation may be used. One frequently employed is the so-called "level percentage of payroll" method, under which the actuary computes the percentage of pay which should be contributed according to sex for each age at entry to provide the specified benefits, taking account of future mortality and interest, and sometimes also of assumed future increases in employee earnings and rates of separation from service. The level percentages of pay determined for each age at entry are applied to the payroll distribution of participating employees to arrive at an over-all percentage of the payroll of participants, which is contributed by the employer each year until a revaluation or change in underlying actuarial assumptions necessitates revision. This method has at times been employed only for future service benefits after the date of establishment of the plan, with financing of previous service benefits under the single premium method of accounting.

Another procedure is to compute payroll percentages on the basis of the ages at which employees would have entered the plan if it had always been in effect. The present value of the future expected payments of the level percentages (normal cost) is then subtracted from the present value of all benefits to be provided under the plan, to arrive at past service cost. This method often has the effect of reducing the normal cost of the plan and increasing the past service cost, thereby allowing the employer greater flexibility in meeting the costs. The flexibility in annual tax deductible contribution ranges from a minimum of zero to a maximum of normal cost plus 10% of the initial past service cost, provided aggregate payments over the years are sufficient to meet the tests of PS No. 57 of the Bureau of Internal Revenue (amounts necessary to provide the benefits due and to prevent the initial past

service liability from increasing). Frequently, an employer could pay maximum contributions for 3 years and suspend payments during the next 2, repeating this process while meeting these tests.

Group Annuity Plans—Single-Premium Deferred Annuity Method.—Under a typical group annuity plan, the exact amount of annuity commencing at the normal retirement date that is credited for each period of service is purchased currently. The cost varies according to the sex of the employees and their age when the benefits are purchased, under the so-called single-premium method of accounting for the cost of deferred annuities. The cost also depends, of course, on earnings of the employee.

If employee contributions are made, the employer contributions cover the balance of the periodic single-premium cost of the benefits provided under the plan, if the benefit is a percentage of earnings for each year of service. Under this method, employer cost per dollar of annuity is much greater for older than for younger employees. Advocates of money purchase plans or level payment methods of accounting contend that in the event of a period of poor business, when few young employees are hired, the cost to the employer of a fixed benefit plan based on single-premium accounting will increase as a percentage of payroll at a time when it will be most burdensome. On the other hand, it is pointed out by advocates of fixed benefit plans and the single-premium method of accounting that during such times there are usually substantial withdrawal credits resulting from employee terminations which are usually applied to reduce the cost to the employer of purchasing benefits for current service, tending to offset any increase in employer cost relative to payroll. The level premium method of accounting has been used under a few group annuity contracts, but it has not been favored by the insurance companies for administrative reasons and a desire to avoid long-term cost guarantees.

Under the usual group annuity contract, past service annuities are also purchased on a single-premium basis, so that the cost for each employee depends on his sex and his age at the time the benefits are purchased. To avoid the possibility of receiving large amounts of employer contributions in times when investment conditions may be unfavorable to the insurance company, group annuity contracts commonly fix the annual past service contribution amount on the basis of the number of years over which the employer desires to amortize it, but there is frequently a provision allowing variation, such as a minimum of ½ and a maximum of 1½ or 2 times the stated annual payment.

Group Annuity Plans—Deposit-Administration Method.—An alternative to the purchase of deferred annuities under a group annuity contract is the so-called group annuity "deposit-administration" method. Available only for larger organizations, a deposit fund is maintained under this method with the insurance company to provide the sums required to purchase immediate annuities for employees when they retire. The amount of the fund and contributions for current and past service benefits may be determined by methods similar to those used under self-administration. They are usually based upon a level percentage of the compensation of all participating employees, estimated as sufficient to purchase the benefits when employees retire, with a discount

for anticipated mortality and interest, and usually with an assumed scale of salary increase and a discount for anticipated future terminations from service. The insurance company guarantees the rate of interest to be paid on funds deposited during the first 5 years of the contract, and the cost of the annuities to be purchased with such funds when employees retire. There may be a limitation on the number of years for which the interest rate will be guaranteed.

The principal advantage of the deposit-administration method is that the employer has greater latitude as to the amount of the contributions that may be made under the plan from year to year. A surrender charge by the insurance company when employee benefits are cancelled because of termination of service under the usual contract for the purchase of deferred group annuities is also avoided. Another possible advantage is that the employer cost depends on actual mortality experience among active employees. If mortality is greater than expected by the table used by the insurance company in computing deferred annuity premium rates, the cost of the plan is correspondingly lower. On the other hand, there is a risk that the opposite may occur. Because there is no guarantee by the insurance company that the deposit-administration fund will be sufficient to meet the cost of benefits, especially since the insurance company does not guarantee the rates applicable to funds deposited after the first 5 contract years, most group annuity plans have used the deferred annuity purchase method rather than deposit-administration. Because deposit-administration offers greater flexibility in making employer contributions, it may be used to a greater extent in the future.

Individual Policy Plans.—If level-premium individual policies are used to provide all of the benefits, the contributions are those required to meet the premiums as they fall due, reduced by dividends and recoveries such as the cash value of policies surrendered on severance of employment. The gross premium cost remains constant for each employee once the policy has been issued, except that it may rise for employees whose earnings increase by the amount of the premium required for new policies taken out to provide benefits with respect to earnings increases. In such cases, the cost will rise not only because of the additional coverage, but also because of the higher premium payable under policies issued at advanced ages.

Group Permanent Retirement Income Plans.—These plans are financed in a manner similar to individual policy plans, except that the insurance company reserves the right to increase premium rates or change provisions as to new coverage after the first 5 years of the plan.

Contributions for Stockholders.—As a prerequisite for approval under section 165(a) of the Internal Revenue Code, a pension or profit-sharing plan must not discriminate in favor of employees who are major shareholders, and such a plan must not amount to a subterfuge for the distribution of profits to such shareholders. Prior to 1950, a ruling (IT 3675, issued July 11, 1944) required that not more than 30% of the contributions made for all participants in any year could be made for employees each of whom owned, directly or indirectly, more than 10% of the voting stock of the employer. In 1950, IT 4020 rescinded this ruling without providing for any such percentage restriction of contributions, but made it plain that the Bureau would continue to scrutinize plans in order to determine if they discriminate in favor of employee shareholders.

EMPLOYEE CONTRIBUTIONS.—Certain questions in connection with these are as follows:

Advisability of Providing for Employee Contributions.—There are two schools of thought regarding the advisability of requiring employees to contribute to the cost of their pensions. Advocates of a contributory plan point out that employee contributions make it possible to provide more adequate pensions than can be financed if the employer pays the entire cost. Also, if employees contribute they have a sense of proprietorship in the plan that is not otherwise obtainable. Advocates of noncontributory plans, on the other hand, point out that (1) the contributions of employees frequently do not finance more than one-fourth of the benefits provided under the plan; (2) the net gain to the employer resulting from employee contributions is not the full amount of the contributions, but is the amount of those contributions less the tax deduction that would be available to the employer if he made the contributions; (3) employee contributions are less effective in providing pensions than employer contributions because of the usual provision for the return of employee contributions on death; (4) if employees contribute they are more likely to demand a voice in the administration of the plan; (5) since it is generally inadvisable to require compulsory participation of all eligible employees in a contributory plan, especially for employees in service when the plan begins, there is the possibility that some eligible employees will not join, thereby creating a retirement problem on their account; (6) there is a much greater tendency under contributory plans to provide liberal vested rights to the benefits financed with employer contributions upon termination of service before retirement, which may absorb a considerable proportion of employer contributions that might otherwise be used to provide more adequate pensions under a noncontributory plan for those who survive in service to old age or disability; and (7) the Securities and Exchange Commission has indicated that registration of contributory self-administered plans may be required for disclosure purposes. (Registration can be avoided by investing employee contributions with an insurance company and employer contributions in a self-administered fund. Registration is not required for contributory group annuity plans.)

Trends in Use of Contributory Plans.—While most earlier pension plans in the United States did not require employee contributions, a large proportion of those established in the depression of the 30's were contributory. More recently, there has been a reversal to noncontributory plans, influenced largely by the low net cost of company contributions in recent years after tax offsets. Other reasons may be that a larger proportion of eligible employees have not joined contributory plans, and higher income taxes payable by individuals.

Ratio of Employee Contributions to Benefits.—Under fixed benefit plans of the contributory type, there are a great variety of employee contribution formulas. Under plans providing benefits that vary according to the employee earnings brackets to take account of federal benefits, it is common to use the same ratio of employee contributions to benefits throughout. For example, employees may contribute 2% of pay for each 1% of benefit, so that under a plan providing pensions amount-

ing to ¾ of 1% of the first $3,600 of annual earnings plus 1½% of the excess for each year of service, employees contribute 1½% of the first $3,600 plus 3% of the excess. There is frequently a greater ratio of employee contributions to benefits in the higher earnings brackets, however, which may be justified in part because higher-paid employees are generally older than the others, making their benefits more costly. Many other ratios of contributions to benefits are used.

With the increasing cost of annuities in recent years there has been a tendency to use a higher ratio of employee contributions to benefits, and many plans specify employee contributions that are equal to as much as 3 or more times the benefits provided as a percentage of pay per year of service. Under money-purchase plans, employee contributions are set as a percentage of earnings, sometimes varying with the earnings brackets, which with employer contributions in a specified ratio, are designed to produce the desired total retirement incomes, including Social Security benefits, if insurance company annuity rates (or annuity values used under a self-administered plan) are not changed.

INVESTMENTS.—Since a pension plan is designed to provide economic security to employees against the major economic hazards of old age or disability and sometimes death, it is generally advisable to confine investments under self-administered plans to securities specified as legal investments for insurance companies, savings banks, or trust funds. Under insured plans, the contributions are automatically invested in accordance with the laws of the states in which the insurance company operates.

In a self-administered plan, the investment powers are laid down in the trust instrument. If it is desired to invest in employer securities, it is generally advisable to restrict investments to senior obligations such as bonds or preferred stock. Where such investments are made, a full disclosure to the Commissioner of Internal Revenue is required to make certain that the plan continues to qualify under the Internal Revenue Code, and that, in particular, it continues to operate for the exclusive benefit of the employees.

TERMINATION OF PLAN.—The Internal Revenue Code provides that, to qualify for tax purposes, a retirement plan must make it impossible for any employer contributions or income earned thereon to be used for purposes other than the exclusive benefit of employees or their beneficiaries, prior to the satisfaction of all liabilities with respect to them. Every tax qualified plan, therefore, describes the procedure to be followed in the event it is terminated.

Termination of Self-Administered Plan.—If the plan is completely self-administered it need not necessarily be liquidated and distributed immediately after contributions cease. It may go on providing full benefits until the fund is exhausted. Or, to assure continued fund solvency, provision may be made to change the benefits from time to time as indicated by periodic valuations of the benefit liabilities and the fund assets, the change being made pro rata on the basis provided by the plan. It is usual to provide for the liquidation of the fund at a time to be determined by the administrative committee or the board of directors of the employer. Some plans and trust agreements merely provide that the assets shall be liquidated and distributed in a nondiscriminatory

manner, as determined by the committee. To avoid the possibility of dissatisfaction when the assets are distributed, however, detailed provisions concerning distributions among employees and pensioners are often included in the trust instrument.

Distribution Formula.—If a self-administered plan is terminated and the fund liquidated, it is sometimes provided that the assets will be distributed in the following order:

1. For the puchase from an insurance company of full retirement benefits for retired participants.
2. For the purchase of full retirement benefits for participants who have reached normal retirement age but have not retired.
3. For the purchase of retirement benefits for participants who have reached an age within a specified number of years of the normal retirement date, upon the basis of reserve liabilities at the date of liquidation using the actuarial principles underlying the plan.
4. For the purchase of retirement benefits for all other participants upon the basis of their respective reserve liabilities, similarly determined.

In the event that assets do not suffice to purchase all of the foregoing, they are applied to the purchase of benefits in full for each group in sequence, and to purchase reduced benefits in a uniform ratio for the participants included in the group for which the remaining assets are insufficient to purchase benefits in full. There are many other distribution formulas, some of which give precedence only to retired employees or to those eligible for retirement.

In other cases, no provision is made for payment of pensions following liquidation of the fund, provision being made for payments in cash based on the reserve liabilities for benefits which had been credited under the plan, proportionately adjusted if necessary to the proceeds of liquidated fund assets.

Termination of Group Annuity Plans.—Group annuity contracts usually provide that after the contract is discontinued as to further benefit purchases, none of the benefits provided by employer contributions can be cancelled. There is thus complete vesting of all benefits provided with contributions of the employer. If employee contributions have been made under the plan, the usual provision is to allow those who leave the company's employ after the termination to withdraw their own contributions with interest, without forfeiting the benefits provided with employer contributions.

Termination of Individual Policy Plans.—If individual policies are held at the time the plan is terminated, the usual provision is to deliver to each participant the policies that have been taken out for him, subject to the right of the committee or trustee to have the policies endorsed in a manner restricting surrender for cash. He may then decide whether to continue the premium payments in whole or in part, convert the policy to another type, surrender the policy for its available cash value, or take paid-up benefits.

Early Termination—Tax Penalty.—The tax regulations state that if a plan is discontinued for reasons other than business necessity within a few years after its establishment, tax deductions may be disallowed with respect to the employer contributions that have been made under the

plan. This generally applies only to the "open" tax years, usually the last 3. There should, therefore, be substantial certainty before a plan is established that, on the basis of past earnings and future prospects of the business, it will be possible to continue the plan indefinitely. The Bureau has stated that a reduction of profits or the occurrence of business losses will not necessarily be considered a valid reason for the discontinuance of a plan.

It is important to note that suspension of employer contributions may be equivalent to termination of a plan with respect to the possibility of retroactive tax penalties. The Bureau of Internal Revenue, in PS No. 57, describes the conditions under which suspension of contributions may be considered termination resulting in retroactive tax penalties. It is possible to suspend contributions without penalty if benefits under the plan are not affected at any time, and if the unfunded cost at any time does not exceed the unfunded past service cost as of the date of establishment of the plan.

As indicated above, Mimeograph 5717 provides that if a plan is discontinued, or if the full current cost of the plan is not met at any time during the first 10 years, the amount of the employer contributions that may be used for the benefit of the 25 highest-paid employees must be restricted.

PENSION COMMITTEE.—Under plans of the completely or partially self-administered type, including plans using individual policies, it is desirable that there be a committee to supervise and be responsible for administrative detail. The committee is usually appointed by the board of directors. The committee usually comprises not less than 3 nor more than 5 members who may or may not be plan participants or company officials, and is empowered to act by a majority vote. Committee members usually serve without compensation but are reimbursed for actual expenses, usually by the trust fund but sometimes by the employer. The committee lays down regulations for the administration of the plan and interprets, construes, corrects, and supplies any omissions in the provisions of the plan in a manner that does not discriminate in favor of officers, shareholders, supervisory or highly paid employees. The committee also adopts the actuarial assumptions underlying the plan, determines the contributions to be made, directs the trustee to make payments out of the trust fund, and, if the plan or trust so provides, passes on trust investments and actions of the trustee. It is common to include a provision exempting the committee from liability for their acts, individually and severally, except when due to wilful misconduct or gross negligence. It is usual to bar a committee member from acting on decisions affecting his individual rights under the plan. The committee maintains employee contact and supplies information and assistance to participants, pensioners, and beneficiaries.

A committee is not required as a rule for a plan underwritten by means of a group annuity contract, since conditions governing the payment of contributions and benefits are stated in the contract. Problems that may arise are usually settled by discussion between the insurance company and the employer.

TRUSTEE.—The following discussion deals with certain provisions regarding the trustee.

Appointment.—All types of pension plans, except those underwritten by a group annuity contract, usually require a trust agreement which must conform to the requirements of the Internal Revenue Code, if full tax deduction advantages are to be obtained. A bank or trust company usually acts as trustee, although an individual or individuals, often executives or employees serving without pay, may act in this capacity.

Functions.—The powers and duties of the trustee are described at length in the trust agreement. The trustee is given the power to hold, invest, and reinvest the fund and fund income, and to perform routine duties connected with investments. The power to select investments may be given entirely to the trustee, the trustee may make investments subject to the approval of the pension committee, or the committee may be given full power to instruct the trustee concerning investments. Cash is retained in amounts necessary to meet obligations under the plan as determined by the trustee or the pension committee.

If the plan is completely self-administered, the trustee may make benefit payments directly to beneficiaries, or the amounts required may be paid to the committee for disbursement as benefit payments.

Liability.—The trustee is generally protected from liability for any fund losses not caused by its own gross negligence.

Resignation or Removal.—The trust instrument specifies the manner in which the trustee may be removed and replaced, generally after 30 or 60 days following notice of action by the board of directors. The trustee is permitted to resign after similar notice to the board of directors.

Relation of Trust to Plan.—There are two schools of thought concerning the **relation of the plan and trust agreement.** Some trustees require that the trust agreement be separate and distinct from the plan. In these cases, the trust agreement is made a part of the plan by reference, but the plan is not made a part of the agreement. This is done primarily to protect the trustee from responsibility for official notice of plan details. The other school of thought holds that the plan and trust agreement should be in one document, thereby providing for all matters to be brought officially to the trustee's attention. Since the trust is irrevocable as to contributions made to it, the trustee must be empowered to carry out the terms of the plan and the trust even if the employer is no longer in existence or associated with the trust.

Tax Rulings.—From year to year the trustee should obtain a ruling from the Commissioner of Internal Revenue as to the tax-exempt status of the trust. The original procedure required the trustee to file the same detailed information as is required with the employer's tax return under Section 29.23(p)-2 of Federal Tax Regulations 111. However, by a later ruling, PS No. 48, it has been provided that the trustee need file only a copy of a letter from the employer to the trustee stating that this information has been filed by him for the tax year in question.

Powers and Duties.—Among the powers and duties of the trustee included in trust agreements are the power to sell, for cash or on credit, any of the assets of the trust; to settle, compromise, or submit to arbitration claims due to or owing by the trust; to sue and defend suits; to

exercise options, conversion privileges, or subscription rights; to borrow and to mortgage or pledge any property held in the trust; to pay expenses, assessments, or subscriptions connected with the trust investments, and to vote personally or by proxy any shares of stock that may be held in the trust.

If insurance or annuity policies are purchased, the trust instrument specifies that the trustee shall be the absolute owner of the policies, and that all of the incidents of ownership shall be exercised by the trustee alone, as directed by the committee or as requested by the participants in accordance with the terms of the plan. For the purpose of carrying out the plan, the trustee is given the power to sell or assign policies; to receive all dividends; to borrow money on the security of the policies and to repay loans and interest thereon; to surrender any policies for cash; to receive all payments on account of the policies; to change the policies from time to time; to execute the necessary papers in connection with the designation of the persons named by the participant to receive the benefits of the policies; to designate any mode of settlement; and to convert the policies.

The trustee often is given the right to settle accounts informally. However, the trustee should be given the right to obtain judicial settlement of accounts in a court of proper jurisdiction.

"Money Purchase" vs. "Fixed Benefit" Procedure

DEFINITIONS.—Benefits are determined under a pension plan by one of two methods:

1. The "fixed benefit" or "definite benefit" method, under which pensions are determined as a fixed percentage of employee earnings for each year of credited service, or more infrequently as a flat percentage of the earnings of participants or a flat amount. The flat percentage basis is associated usually with plans employing retirement income policies.

This fixed benefit method is by far the most popular. If the plan involves employee contributions, each employee contributes a stated percentage of earnings and the employer pays the balance of the cost of the benefits for current service, which varies according to the sex and age of the employees.

2. The "money purchase" method, under which contributions instead of benefits are fixed as a percentage of employee earnings, and current service pensions are those that can be purchased with the contributions made at each age. Consequently, the benefits vary not only with the amounts contributed, but also in accordance with the annuity rates applicable at each age.

Pensions for past service are usually on a fixed benefit basis, being a percentage of pay times the years of credited service under either type of plan.

FIXED BENEFIT PLAN ADVANTAGES.—Fixed benefit plans have the following advantages: the amount of pension may be readily estimated on the basis of assumed employee earnings without reference to annuity costs; lower employer contributions are made at the younger ages, which permit larger contributions for employees nearing retire-

ment; the cost of vesting annuities in employees who are most apt to sever employment is lower; the benefit objective is not changed because of future changes in basic annuity costs; and pensions are more closely related to the final rate of employee earnings.

MONEY PURCHASE PLAN ADVANTAGES.—Money purchase plans have the following advantages: each employee is always aware of the amount the employer is contributing for him; employer cost may be a more constant percentage of payroll; larger benefits are available for employees retired before the normal retirement age because of disability or other reasons than under a fixed benefit plan financed on the single-premium basis; and no benefit precedent is established that might be difficult to maintain if annuity costs increase.

GENERAL CONSIDERATIONS.—Advocates of fixed benefit plans contend that money purchase plans have been outmoded by increasing annuity costs due to lower interest rates and the greater longevity of employees and pensioners. Increased annuity costs reduce pensions below the original objective of a money purchase plan, unless contributions are correspondingly increased. Because it has usually not been advisable to increase employee contributions under money purchase plans, employers in such cases have met higher costs by increasing the matching ratio, the employer contributing $1.50, $2, or more, for each $1 of employee contributions. It is contended that, if this is to be the experience under a money purchase plan, a fixed benefit plan with the employer automatically paying the full amount of any cost increase is preferable, since the advantage cited in favor of the money purchase procedure that annuity cost increases could be shared between employee and employer is more theoretical than practical.

The ease with which the amount of the pension may be estimated under a fixed benefit plan is its chief advantage. Money purchase plan advocates contend, however, that pensions under such plans can be readily estimated by multiplying the amount the employee contributes by a factor taken from a table usually included in such plans. The pension thus estimated, however, does not take account of future increases in annuity costs.

Fixed benefit advocates point out that relatively small pensions are provided for the future service of older employees under money purchase plans, and that if earnings increase rapidly the pension will not rise proportionately Furthermore, lower future service benefits for older employees make larger past service pensions necessary. Money purchase advocates counter that all employees should be treated alike from a cost standpoint, and that the higher cost for older employees under a fixed benefit plan will cause an employer to hesitate in hiring new employees in the middle and older age groups, which is socially undesirable.

Money purchase plan advocates feel it encourages participation by younger employees for whom comparatively small employer contributions are made under fixed benefit procedure. Fixed benefit advocates counter that the money purchase arrangement places too much of the employer contributions on the younger, high turnover employees, and that vested rights given these younger employees are costly, resulting in smaller pensions for the older employees who are most likely to constitute a retirement problem.

Fixed benefit plans have always greatly outnumbered money purchase plans. Money purchase procedure is confined almost exclusively to plans toward the cost of which employees contribute, and they are mostly of the group annuity type.

Profit-Sharing Plans

IMMEDIATE-DISTRIBUTION PROFIT-SHARING PLANS.—The following discussion deals with the nature and scope of plans of this type and certain questions arising in connection with such plans.

Definition and Objectives.—An immediate-distribution profit-sharing plan provides compensation additional to take-home pay as a reward for better-than-average performance as measured by the profits of the enterprise. None of the shared profits are stored for future delivery. The plan is thus essentially a bonus plan dependent upon profits, the distributions usually being made annually.

Among reasons for establishing immediate-distribution profit-sharing plans have been a desire to unify the interests of the business and employees and instill a "feeling of partnership"; to give employees a stake in the private enterprise system; to increase employee initiative and efficiency; to eliminate wasteful practices, and to improve employee goodwill and loyalty generally. Another reason may be a desire to avoid increases in wage and salary rates that would be difficult to remove in times of poor business.

Scope and Nature.—Immediate-distribution profit-sharing plans may be confined to one or more employees. The employer may decide who are to receive the bonuses and the division of the shared profits. The procedure may be formal or entirely discretionary with the employer. In contrast, deferred-distribution profit-sharing plans which qualify under the Internal Revenue Code must include a fixed formula to fix the portion of profits to be shared and a nondiscriminatory method of allocation among the participants, who must then include a broad class of employees as under pension plans, such as all salaried employees or all earning above a stated sum such as $3,600 per year. Most deferred-distribution profit-sharing plans include all regular employees who have completed a specified period of service.

Profit-Sharing Formula.—The formula to determine the portion of profits to be shared under an immediate-distribution profit-sharing plan may be based on profits before or after taxes. The percentage used will naturally be lower if it is applied to profits before taxes. To assure a fair return to stockholders, many plans provide that dividends or earnings on invested capital at a specified rate will be deducted before determining the amount of profits to be divided among employees.

Allocations to Participants.—Under an immediate-distribution profit-sharing plan it is possible to weight allocations to participants according to length of service as well as compensation, although distributions are frequently based entirely on compensation only. In many cases, no formal method of allocation is specified, distributions being based on individual merit, in the discretion of the employer.

Size of Organization.—Many surveys have concluded that profit-sharing plans are more effective in promoting labor efficiency in small organizations where individual effort has a more direct bearing on profits than in larger enterprises, particularly those engaged in mass production where the individual employee can do comparatively little to control the volume of production, and where his efforts have but a small effect on the amount he receives under the plan.

Relation to Basic Compensation.—Profit-sharing plans of the immediate-distribution type are sometimes established to give compensation increases in prosperous times that will automatically lapse during periods of poor business. Employees will not usually accept such a basis of compensation unless it is clearly a supplement to a competitive wage scale. If good employee relations are to be maintained, basic rates of compensation must be paid that are in line with those paid by the industry and the community. High personal income taxes have minimized the attractiveness of profit-sharing cash bonuses to executives. These considerations indicate that a profit-sharing plan of the immediate-distribution type may not be desirable for the large majority of employers.

Employee Reaction.—A profit-sharing plan must provide reasonably large returns to individual participants if it is to promote employee good-will and efficiency. Organized labor favors inclusion of all employees, as against provision of larger shares for a relatively small group of long service employees. Profit-sharing is likely to be most effective, therefore, in industries where labor cost is a low percentage of gross sales, making it possible to make substantial payments to individual employees.

A leading cause of discontinuance of immediate-distribution profit-sharing plans has been employee dissatisfaction. The employees become accustomed to receiving extra compensation when profits are substantial and gear their living standards accordingly; when the extra compensation is reduced or eliminated because business is poor, they tend to look upon the reduction as a pay cut. Also, dissatisfaction results from delay in making distributions, which may occur as much as a year after the profits resulting from employee effort have actually been earned. The distribution is commonly made by a single annual payment. While employees are likely to be enthusiastic at that time, interest may be lacking during the remainder of the year.

It is essential that a continuous educational effort be made to impress employees with the principles of the plan so that there will be a minimum of dissatisfaction when the profit-sharing distribution is reduced or eliminated.

The history of immediate-distribution profit-sharing plans reveals no steady growth in the movement. More plans are established during periods of prosperity, but there is a high rate of discontinuance in ensuing depressions. Profit-sharing plans may be compared to common stocks in that they both appear attractive to the majority in boom times, and unattractive during depressions.

Tax Status.—Under the immediate-distribution type of profit-sharing plan, the amounts received by employees are subject to personal income tax. The employer's profit-sharing contributions are deductible from his

taxable income if the test of the Bureau of Internal Revenue's regulations as to reasonableness of total employee compensation is met.

DEFERRED-DISTRIBUTION PROFIT-SHARING PLANS.—Such plans have a number of objectives and collective bargaining implications.

Definition.—A deferred-distribution profit-sharing plan is here regarded as one designed to qualify under the Internal Revenue Code, so that the employer may deduct his contributions from taxable income and no income tax need be paid by employee participants until the year when benefits are actually received, and the trust itself is exempt from tax.

Such a deferred-distribution profit-sharing plan may be defined as an arrangement to share profits with employees under a fixed formula, the profits shared being accumulated in a trust fund and paid out to employees on the happening of specified contingencies, such as the completion of a specified number of years of membership in the plan, the attainment of a certain age, occurrence of disability, severance of employment or death.

Objectives.—Objectives of deferred-distribution profit-sharing plans are the same as in immediate-distribution plans. Most of the plans established during the war years were designed as a substitute for wage and salary increases, which were barred by stabilization regulations.

Some employers have sought to use profit-sharing to finance retirement benefits, instead of contributions based on actuarially computed costs or premiums paid to an insurance company for pensions credited in relation to employee earnings and length of service. Another objective has been the provision of death benefits out of credits in the profit-sharing trust fund, sometimes supplemented by the purchase of life insurance policies out of each participant's share. Severance benefits also have been a consideration, especially for long service employees.

Collective Bargaining Implications.—A profit-sharing plan may encourage organized labor to question earnings statements of employers. William Green, president of the American Federation of Labor, although "not opposed to the principles involved in profit-sharing," stated before a Congressional committee in 1938 that "profit-sharing plans were mainly developed by corporations that attempted to substitute for real collective bargaining an arrangement termed 'employee representation.' . . . The companies sought to oppose trade unionism by 'refined' methods. . . . Labor cannot be asked to accept blindly management's decision on what constitutes profits. All facts must be available. (1) Production and cost records must be equally available to union and management. . . . (2) Sales policies must be considered by both parties and be mutually acceptable. . . . (3) Salaries of executives and officers and returns to investors must be subject to the same conditions. . . . (4) Financial policies and proposals must be subjected to the same review and decision. . . ." In a booklet entitled "How Corporations Conceal Profits," the United Electrical, Radio and Machine Workers of America state: "There is literally no end to the number of ways by which profits may be concealed, and most large corporations know them all." The booklet lists possibilities for concealing profits in depreciation, inventory valuation, and reserves.

If the basis of computing profits should give rise to friction in collective bargaining, results might be unfortunate. Such controversies can be minimized only if the plan is established and completely controlled by management. It is doubtful whether, once established, a profit-sharing plan can be kept out of collective bargaining.

DEFERRED-DISTRIBUTION PROFIT-SHARING PLANS COMPARED WITH PENSION PLANS.—Where an employer can afford both an adequate pension plan and a deferred-distribution profit-sharing plan, it may be desirable to adopt both.

But most employers are unable or unwilling to undertake both types of plans. It then becomes a question of which plan should be established. If the employer has employees who constitute a present problem of superannuation or disability, a pension plan is needed to provide for them and other employees who will have to be retired because of age or disability in the next 15 or 20 years. If the employer establishes a deferred-distribution profit-sharing plan, he will still be faced with the expense and problem of providing for superannuated and disabled employees for many years before profit-sharing can provide adequate benefits for them. One reason for this is that the Bureau of Internal Revenue usually does not permit a deferred-distribution profit-sharing plan to make adequate provision for past service except, perhaps, for the lowest-paid participants, for allocations must not discriminate in favor of highly paid employees, which means that allocations generally cannot be made in accordance with length of service or age, since the oldest employees who have served for the longest periods are usually paid more than others. Another reason why profit-sharing provides less adequate pensions in the early years of a plan is that sums allocated to individual participants who remain in service to retirement are applied to buy retirement benefits under a money-purchase procedure, so that the amount of the benefit depends on the sex of the participants and their years of membership in the plan. As a result, the pension benefits are relatively small for employees who are of advanced age when the plan is established, and who constitute the most pressing retirement or disability problem. Under a self-administered pension plan, contributions need not be allocated to individual accounts, but the whole fund may be used for the sole purpose of providing pensions on a first-come-first-served basis for those who actually retire. Assuming the same employer contributions as under a pension plan, a deferred-distribution profit-sharing plan usually disperses more money for death and severance benefits, leaving less for pensions.

If a substantial part of the amounts allocated to participants are paid out to them while they are in active service, little will be left to provide benefits on retirement because of old age or disability, or in the event of death or severance.

To illustrate the operation of a profit-sharing plan as compared with a pension plan, let us assume a deferred-distribution profit-sharing plan under which approximately one-third of the contributions is used for death benefits, since provision is usually made for payment to a participant's beneficiary of his full account when he dies. Payments to employees leaving the company's employ depend on turnover before retirement and forfeiture provisions, but might absorb another one-third of the

contributions. Thus, only about one-third of the total would be left to provide pensions.

Even assuming that the amounts allocated to participants are not diminished by distributions during their active service but are held intact until retirement, the most that can be used to provide retirement benefits are the maximum tax deductible contributions of 15% of the compensation of participants for the years during which they are members of the plan, together with fund earnings and any severance forfeitures that have been apportioned to individual accounts, reduced by amounts that may have been paid for life insurance. The amount credited to the individual's account is applied to provide retirement benefits on a money purchase basis, which means that much more will be provided for young than for older entrants, and more will be provided for males than females.

A pension plan, on the other hand, may utilize all available funds for pensions. None of the employer contributions need be used for death or severance benefits, and the entire fund can be used to pay pensions. In addition, under a pension plan the employer may contribute and deduct from his taxable income more than 15% of the aggregate compensation of participants if actuarially required under the plan, so that a pension plan may provide larger death and severance benefits.

On the basis of identical contributions, pensions that can be provided are shown by the tabulation below, which has been prepared on the following assumptions:

1. Both plans are qualified under section 165(a) of the Internal Revenue Code.
2. Employer contributions amounting to 15% of the compensation of participating employees are made annually under each plan. (After pensions for past service have been fully funded, the cost of the pension plan would be reduced to, perhaps, 10% of compensation, without affecting the pension amounts.)
3. All employees are males, retiring at age 65 under both plans.
4. Under the pension plan, all employees are credited with a minimum of 30 years of service (service from age at entry, if they are shown to enter the plan after age 35).
5. Social Security primary insurance benefits are estimated for 30 years of coverage under both plans.
6. Full vesting of contributions is provided under the profit-sharing plan on severance and death before and after retirement (cash refund annuities provided); no payments on severance or death are provided under the pension plan.
7. Salary increases are the same under both plans.
8. Both plans are self-administered before and after retirement.
9. The cost of pensions under both plans is computed on the basis of the 1937 Standard Annuity Table with 2½% interest and a loading of 8% of gross.
10. Under the pension plan, the age, service, and salary distribution is assumed to be such that 15% of the compensation of participants will finance future service pensions amounting to 2% of earnings for each year of future service, and past service pensions of 2% of the annual rate of earnings at the time of entry into the plan multiplied by the number of years of prior service.
11. Under the profit-sharing plan, 15% of the compensation of each individual is used to finance his pension, which is consequently based only on service after the date of plan establishment.

EXAMPLES OF RETIREMENT BENEFITS UNDER DEFERRED-DISTRIBUTION PROFIT-SHARING PLAN AND PENSION PLAN.—

	Profit-Sharing Plan			Pension Plan	
Age at Entry into Plans	Profit-Sharing Pension as Per Cent of Final Salary	Social Security plus Profit-Sharing Pension as Per Cent of Final Annual Salary of $3,600	Social Security plus Profit-Sharing Pension as Per Cent of Final Annual Salary of $10,000	Social Security plus Pension Plan Pension as Per Cent of Final Annual Salary of $3,600	Social Security plus Pension Plan Pension as Per Cent of Final Annual Salary of $10,000
55	10%	35%	20%	84%	67%
50	15%	40%	25%	80%	65%
45	21%	46%	31%	79%	64%
40	28%	53%	38%	78%	63%
35	35%	60%	45%	77%	62%
30	43%	68%	53%	84%	69%
25	52%	77%	62%	91%	76%

Provisions of a Deferred-Distribution Profit-Sharing Plan

PROFIT-SHARING FORMULA.—The Bureau of Internal Revenue, under IT 3661, specifies that if a deferred-distribution profit-sharing plan is to give tax advantages to the employer, the participating employees, and the trust, there must be a specific formula for determining the portion of the profits to be shared, to be followed until an approved amendment is made. A plan under which the employer has discretion in determining the amounts to be contributed will not be approved by the Bureau.

The formula may simply commit the employer to contribute a specified percentage of the profits each year, but it is much more common to provide for contributions based on a specified percentage of the profits in excess of (1) a flat dollar figure, (2) a percentage of invested capital, or (3) dividend payments to stockholders. Special provision may be made for contingency reserves, adjustments in taxes for previous years, and other items. Under some plans, the profits are shared with employees on a progressive scale, so that the larger the profits the larger will be the proportion contributed under the profit-sharing plan.

15% of Compensation Limit.—A maximum on annual contributions of 15% of the compensation of participating employees is also usually included, because of the provision of the tax law limiting deductible contributions under profit-sharing plans to that amount. But it is not necessary to restrict contributions to 15% of the aggregate compensation of participants in any particular year, since the law allows larger contributions if less than 15% of the compensation of participants was contributed in previous years. It is provided, however, that the additional deduction because of lower contributions in previous years cannot exceed 15% of the compensation of covered employees in the later year. It is possible, therefore, to contribute and deduct in one year as much as 30% of the compensation of participants.

Determination of Profits.—The plan must include a definition of what constitutes profits. This definition must be followed consistently until an approved amendment is made. The basis used in computing taxable income is acceptable to the Bureau of Internal Revenue, although many plans use profits after taxes as the basis of determining the contribution to the plan.

METHOD OF ALLOCATION.—For tax approval, a profit-sharing plan must contain a specific formula describing the method of allocating the profits shared among participating employees. This formula must not discriminate in favor of officers, shareholders, supervisory or highly compensated employees. The Bureau of Internal Revenue has expressed its views on this matter in IT 3685 (an acceptable formula) and IT 3686 (a nonacceptable formula).

As a practical matter, shares of individual employees cannot vary with length of service, since those with the longest service are generally compensated at higher rates than other employees. Even if such a procedure was nondiscriminatory at the outset, it may prove unsafe in later years, since the distribution method must be nondiscriminatory for each year of the plan. The simplest and safest allocation method, therefore, is to distribute the profits shared in direct proportion to the compensation of employees. This makes it impossible to provide adequate retirement benefits under a profit-sharing plan alone for those retiring until many years after the plan begins. While it is sometimes possible for an employer to secure approval for an allocation formula that takes into account the years of past service of lower-paid employees, arranged so that it would not favor the higher-paid employees in any year, such a procedure would not provide adequate pensions for higher-paid employees or lower-paid employees retiring after a short period of membership.

Past Service Pensions Not Permitted.—It is not possible for a tax qualified profit-sharing plan to provide specific pensions for past service because section 23(p)(1)(C) of the Internal Revenue Code provides that a profit-sharing trust does not include "any trust designed to provide benefits upon retirement and covering a period of years, if under the plan the amounts to be contributed by the employer can be determined actuarially. . . ."

Basis of Individual Accounts.—The plan may establish individual accounts in dollars for participating employees with annual apportionment of contributions, generally in proportion to employee compensation, and with apportionment of fund increments or losses pro rata. Individual accounts are sometimes established in terms of **units** having an initial stated value, such as $1, which are revalued thereafter by dividing total assets held under the plan by the number of outstanding units. Annual contributions are then allocated to individual accounts in terms of units. The unit method simplifies accounting computations.

Under a unit formula, the interests of new and old participants should be protected from dilution by dividing the amount in the fund, before a new contribution is made, by the number of units outstanding before the addition of new units, to determine the unit value used in apportioning current contributions.

ELIGIBILITY FOR MEMBERSHIP.—Under section 165(a) of the Internal Revenue Code, the eligibility provisions of a deferred-distribution profit-sharing plan may not discriminate in favor of stockholders, supervisory or highly compensated employees. For this reason, it is common to include all regular employees who have completed a specified period of service, usually not more than 5 years. Eligibility under profit-sharing is subject to the same considerations as eligibility under pension plans, with the exception that employees are not generally excluded because of age. Also, to secure tax approval of a profit-sharing plan confined to employees earning more than $3,600 per year, it must be integrated with Social Security benefits in accordance with Mimeograph 6641, as with a pension plan.

RETIREMENT.—It is usual under deferred-distribution profit-sharing plans to provide for normal retirement of employees, generally when they reach age 65. If a portion of the fund has been allocated to purchase annuity benefits, these generally commence under provisions similar to those of pension plans. Because of the absence of any fixed retirement annuity concept such as is usually applicable under a pension plan, profit-sharing plans generally do not include provisions for actuarially equivalent annuities for employees who retire before the normal retirement date, as is common under pension plans. If the profit-sharing plan uses a group annuity contract, such a provision may be included, however, and reduced incomes beginning at earlier ages are available if individual policies are employed. Unless operated in conjunction with a pension plan, a profit-sharing plan does not usually contain detailed provisions for retirement of employees after the normal retirement date or a provision preventing employees who continue to work after the normal retirement age from receiving an allocation from the subsequent annual profit-sharing contribution of the employer.

AGE PENSION BENEFITS.—Retirement benefits payable for life, either through the purchase of annuities or a self-administered funded procedure, are sometimes absent under profit-sharing plans. Instead, provision is made for a lump-sum distribution to retiring employees or a distribution in instalments over a specified period of years. The absence of provision for benefits payable for life may be caused by a desire to have the accumulation paid out in one sum so that it will constitute a "capital gain" subject to a maximum personal income tax of 26%. Another reason may be the small amounts credited to individual employees who retire during the early years of the plan because it is usually impossible to allocate contributions on the basis of length of service, which would introduce discrimination in favor of the highly compensated older group. After a plan has operated successfully for a number of years, however, and amounts credited to participants have become substantial, it may be amended to provide for life benefits through the purchase of annuities or a self-administered fund. Because adequate account cannot usually be taken of past service under a profit-sharing plan, it cannot fulfill the functions of a pension plan for many years after it is established.

If a plan provides for the distribution of all or a substantial portion of the employee's share in the profit-sharing fund while he is in active service, under a provision that allocations will be held for, say, 10 years

in the employee's account and then paid out to him over the ensuing 10 years, it is obvious that only relatively small sums will be left for retirement benefits.

If a profit-sharing plan is operated in conjunction with a pension plan, the Bureau of Internal Revenue will not permit contributions made under profit-sharing to be used as a "feeder" to the pension plan, except that employee contributions to the pension plan may be paid from amounts allocated to their accounts under profit-sharing. Amounts so applied then constitute currently taxable income to employees.

Use of Single-Premium Annuities.—If retirement benefits are a primary objective of profit-sharing, a part or all of the annual contributions may be made to purchase single-premium deferred annuities, using either individual or group annuity contracts. While level annual premium annuity policies are sometimes used, this is seldom desirable because of the possibility of losses due to possible lapse of the policies if future profit-sharing distributions prove insufficient to pay premiums due.

Use of Ordinary Life Insurance Policies.—To avoid the inflexibility of level premium annuity contracts, the plan may provide for the purchase of level premium ordinary life insurance policies. A portion of each year's contribution is used to pay the annual premium, starting with ¼ or ⅓ of the first year's allocation, the remainder being held in the employee's individual account and invested in securities in the profit-sharing trust fund, which may be applied to meet premium payments in years when profits are low, to convert the life insurance policy to an annuity contract at retirement, or to purchase a supplemental annuity at retirement.

DISABILITY PENSION BENEFITS.—Under the usual type of self-administered profit-sharing plan, with distributions on severance of employment, death, or retirement, benefits provided in the event of severance because of disability are usually the same as those for severance of employment or retirement, except that any provision for forfeiture on severance is not applicable. The disabled participant then receives his full share, either in a lump sum or in stipulated instalments over a period of time. With a group annuity contract, the same provisions for actuarially reduced annuities on early retirement may apply as are found in group annuity pension plans. If individual retirement income policies are employed, the disabled employee is given the privilege of electing one of the options included in the policy, either a cash settlement, a reduced annuity or continuance of premium payments for the life insurance protection offered by the policy. It is apparent, therefore, that the problem of taking care of employees who become disabled in the early years of operation cannot be adequately solved under a profit-sharing plan, regardless of how allocations are applied.

SEVERANCE OF EMPLOYMENT BENEFITS.—In contradistinction to pension plans, profit-sharing plans frequently provide cash benefits on termination of service. Amounts paid to employees in a lump sum in one year, representing allocations then credited under profit-sharing plans, are taxable to the employee at the favorable long term capital gain rate.

It is advisable to provide that a participant shall not have an absolute right to receive his share in the fund upon severance of employment or termination of the plan, but rather that such right be subject to discretion of the trustee or committee as to the time of payment, to avoid complications concerning overtime compensation based on contributions to the plan under rulings of the Wage and Hour Division.

Forfeiture of all or a portion of an employee's credit is common if his service terminates before completion of a specified number of years of service or participation in the plan. A graduated scale is often used to determine the amount to be paid or forfeited. For example, employees who leave the employ of the company may be entitled to 10% of their credit for each year of participation in the plan, up to 100% after 10 years. While a forfeiture provision for employees who leave in the early years is justified because it permits the accumulation of larger benefits for those who stay, it is disadvantageous because it detracts from the employer's effort to secure increased employee cooperation in view of the possible forfeit of benefits.

DEATH BENEFITS.—While death benefits are not absolutely necessary under profit-sharing plans, they are logical if one objective of the plan is to stimulate employee cooperation and carry out the profit-sharing concept. Under the usual deferred-distribution profit-sharing plan with assets held in a trust fund, the accumulated share of an employee who dies is normally paid to a beneficiary designated by the employee. If no beneficiary has been designated, or if the beneficiary does not survive the employee, provision is usually made for payment to the employee's estate, although some plans, particularly those using group annuity financing, specify that in this event payment may be made to the employee's relatives in a listed order of preference. The employee has the right to change the beneficiary at any time.

Death Benefits under Ordinary Life Insurance Policies.—Under a plan using ordinary life policies, the administrative committee procures an individual or group permanent ordinary life insurance policy for each insurable employee in an amount that can be purchased with ¼ or ⅓ of the share of the profits allocated to the employee in the year the policy is purchased. As a protective measure, the annual life insurance premium is usually not greater than an amount equal to 5% of the employee's basic compensation, so that in no event will the annual cost exceed ⅓ of the 15% of compensation allowed as the maximum employer tax deductible contributions to the plan. With ordinary life insurance, ownership of the policies is vested in the trustee, except that participants may designate beneficiaries and modes of settlement. Upon the death of employees under a plan that provides death benefits through life insurance, beneficiaries designated by the employees and named in the policies receive the benefits directly from the insurance company in accordance with the terms of the policy.

If this procedure is followed and life insurance benefits are paid for with a portion of the employee's accumulated share of the profits, the cost of the pure life insurance element and the loading charges of the policies will reduce amounts available for other contingencies such as severance, disability or age retirement, leaving the cash surrender value of the policies available for these purposes.

Some ordinary life insurance policies may be converted into an annuity by application of amounts in the employee's individual account, as well as the cash value of the ordinary life insurance policy, to this purpose.

Death Benefits under Group Annuity Contract.—If group annuities carrying full death benefits are purchased with the employer contributions, they will be about 60% of those provided with employer contributions on a no-return-at-death basis under a pension plan. This reduction results not only from payments made to beneficiaries of those who die before retirement, but also the purchase of full cash refund annuities instead of life annuities providing no return on death after retirement.

EMPLOYEE CONTRIBUTIONS.—It is not usual to include a provision for employee contributions in a profit-sharing plan. If employees are asked to contribute, there must be an incentive for them to do so in the form of a minimum annual employer payment. Otherwise, there will be little incentive for employees to contribute in years when there are no profits to be shared, and they may lose interest and withdraw from the plan. In a number of plans, employees are asked to contribute under a subsidized savings arrangement, the company guaranteeing interest at a fairly high rate and offering the further inducement of participation in profits.

INVESTMENTS OF PROFIT-SHARING FUND.—If the objective of a deferred-distribution profit-sharing plan is to provide basic economic security against the hazards of old age, disability, unemployment or death, it is advisable to confine investments to securities legal for insurance companies or trust funds. Some employers have felt that investment in securities of the employer may be desirable in profit-sharing plans (1) to secure a greater return on the fund, or (2) to promote the "partnership principle" through greater participation in the success of the business. This practice has proved successful for enterprises that have been consistently profitable. But since this can only be determined "by hindsight," it is not advisable to invest a profit-sharing fund in securities of the average company unless a separate and adequate pension plan assures economic security. A drastic decline in the value of the employer's stock may prove unfortunate, especially if it should occur at a time when profits as well as employment opportunities are reduced. In this event, not only is there insecurity as to the employee's job, but the employee's future security is also placed in jeopardy.

Full disclosure of investments that are made in employer securities must be made to the Commissioner of Internal Revenue, to make certain that the plan continues to qualify under the Internal Revenue Code. Obviously, participating employees also should be informed concerning such investments.

If employee contributions are made under the plan, it is even more desirable that a conservative investment policy be followed, at least for amounts they contribute. The common practice is to use obligations of the United States government or life insurance or annuity policies.

Some plans give employees at least a partial voice in investment policy, and one plan gives them veto powers in so far as employers securities are concerned. This could lead to controversy.

Advocates of self-administration contend that a profit-sharing plan, by its very nature, should be invested only in securities, and no commitment should be made for annual premium payments on insurance policies because of uncertainty as to profits.

Individual Policies.—An advantage claimed for the use of individual policies in a profit-sharing plan is that larger death benefits may thereby be provided in the early years of the plan than would be available by merely paying the amount accumulated to the credit of employees who die. Because of the fluctuating nature of the contributions made under a profit-sharing plan, however, it is generally inadvisable to take out insurance policies for employees when the plan is first established, unless the business is quite stable and there is assurance of steady contributions in future years. It is possible that if insurance policies are taken out at the outset, the original participants may receive insurance protection while later participants may not because of a lack of profits after they become eligible.

Annual premium policies should not be used as the sole investment vehicle under a profit-sharing plan because of the fixed yearly premium required. They should be used only as a partial investment in conjunction with a fund invested in securities. The supplemental investment fund must ordinarily be quite substantial because, if little or no profit should be available for the purposes of the plan over a period of years, it would become necessary to borrow on policies to meet the premium cost, to reduce the amount of the policies or to allow them to lapse. This is almost certain to occur where policies are issued for employees who enter the plan a year or two before curtailment or elimination of profit-sharing contributions. Combination procedures have been developed, such as investing ⅓ or ¼ of the first year's allocation for each employee in an annual premium ordinary life insurance or retirement income (with insurance) policy, the remainder being held in reserve as a cushion to pay premiums in subsequent years. Additional policies are then added from time to time when financially feasible.

Group Annuity Contract.—The use of a group annuity contract as an investment vehicle for a profit-sharing plan is a recent development. Each employee's share of the profits is used to purchase a typical single-premium deferred annuity under a master group annuity contract. Underwriting rules applicable to group annuity coverage for profit-sharing plans are not yet clearly defined. From the viewpoint of the insurance company, it is advantageous to underwrite only plans of more stable employers where there is reasonable expectation of substantial and continuous profit-sharing contributions. One of the larger insurance companies requires that at least 100 employees be covered but may write a contract covering as few as 50 if the initial premium is substantial and the prospect for continued payment of premiums is favorable. Premiums are payable entirely by the employer up to a maximum of 20% of an individual's salary. A premium of at least $50 for each employee covered must be paid in a period of 3 years, a requirement that could not be met if there should be a prolonged period of low profits. Special approval of the insurance company is required if premiums in any one year exceed $500,000. Annuity premium rates are guaranteed only for the usual first 5 years of the contract.

TERMINATION OF PLAN.—A profit-sharing plan usually reserves the right to the employer to terminate profit-sharing contributions, whereupon the fund continues to operate and distributions are made to employees until it is liquidated.

ADMINISTRATIVE COMMITTEE.—An administrative committee is needed to operate a profit-sharing plan. This committee, usually of 3 or 5 members, may be appointed by the board of directors, but employee participants are sometimes permitted to select one or more of the committee members. In some cases members are elected by each of several classes of employees, such as salaried employees and wage earners. The fact that a member of the committee is also an officer, director, or stockholder of the employer, or a participant, does not disqualify him from serving as a committee member, except for decisions affecting his own rights under the plan.

Members of the committee usually act without compensation, but are reimbursed for actual expenses. Reimbursement is usually from the trust fund, but in some cases it is made by the employer. No member of a committee is liable for any act or decision, except his own when performed in bad faith.

The committee decides administrative questions arising under the plan. It construes the plan for all parties. Action taken or instructions given by the committee must not discriminate in favor of officers, shareholders, supervisory or highly compensated employees. Depending upon arrangements with the trustee, the committee may supervise the keeping of employee accounts, including the apportionment of employer contributions. The committee may also pass on benefit payments out of the fund by the trustee or make these payments itself. The committee maintains contact with employees, supplying information and assistance to participants, annuitants and their beneficiaries.

If individual policies are used under the plan, the committee arranges for issuance of policies and their delivery to the trustee with instructions as to premium payments. If a group annuity contract is used, the committee has few functions, but it is usually necessary, especially if all amounts contributed under the plan are not applied to the purchase of benefits under the group annuity contract.

TRUSTEE.—To obtain full tax advantages, an irrevocable trust must be created for a deferred-distribution profit-sharing plan, and a trustee appointed to hold title to and invest the trust fund. A bank or trust company may be appointed trustee, or an individual or individuals may act in this capacity.

The powers of a trustee under a deferred-distribution profit-sharing plan are generally as broad as those granted trustees of pension plans. As under a self-administered pension plan and trust, the trustee is empowered to hold, invest, and reinvest the fund and income thereon, and to perform all duties incident to investment. Under some plans and trust instruments, the trustee keeps records of individual accounts and apportions profit-sharing contributions, fund earnings and amounts released by forfeitures. The trustee is generally required to make periodic statements concerning the condition of the fund.

Compensation.—The trustee is usually compensated for services, as set forth in a separate agreement, except where the trustee is an individual associated with the employer willing to act without pay. Expenses of the trustee are paid either from the fund or by the employer.

Tax Rulings.—The trustee should keep itself protected from year to year by requesting rulings from the Commissioner of Internal Revenue as to the tax-exempt position of the trust.

SECTION 24

NEGOTIABLE INSTRUMENTS

CONTENTS

PAGE

Fundamentals of Transactions

Nature and origin of negotiable instruments 1041
Requisites of negotiability 1041
Negotiation 1042
Indorsement 1042
Liability of parties 1042
Warranties 1042
Classification of instruments 1042
Promissory notes 1042
Promissory note made by individual (*f.* 1) 1042
Bill of exchange 1043
Typical draft or bill of exchange (*f.* 2) 1043
Checks 1044
Typical checks (*f.* 3) 1043
Presentment and demand for payment 1044
Time of maturity 1044
Protest 1044
Discharge of instrument 1044
Discharge of indorsers 1044

Sections of the Uniform Negotiable Instruments Act

Development of Uniform Negotiable Instruments Act 1045
General requirements—form of the instrument 1045
Writing 1045
Signature 1045
Order 1045
Certainty as to sum 1045
Instalment promissory note (*f.* 4). 1046
Property improvement note, payable in instalments (*f.* 5) 1047
Acceleration clause applying in case of default (*f.* 6) 1048
Sum certain 1048
Attorneys' fees 1048
Promise to pay unconditional 1048
Principal fund indicated 1048
Time of payment 1048
Fixed time 1049
Instalment note specifying fixed times of payment (*f.* 7) 1049
Future time 1049
Contingent time 1049

PAGE

Additional provisions not affecting negotiability 1049
Collateral security 1049
Note provisions regarding collateral (*f.* 8) 1050-1051
Election by holder 1051
Goods in lieu of money 1051
Confession of judgment 1051
Omissions; seal; kind of money 1051
Lack of date 1051
Omission of "value received" 1051
Seal is surplusage 1051
Particular kind of money 1052
Requirement of stating consideration 1052
When instrument is payable on demand 1052
Due date of demand instrument ... 1052
When instrument is payable to order 1052
Specified person only 1052
Nonnegotiable note, payable to a specified person only (*f.* 9) 1052
Alternate payees 1052
Holder of an office 1052
When instrument is payable to bearer 1053
Particular bearer 1053
Fictitious person 1053
Last indorsement blank 1053
Terms 1053
Presumption as to date 1053
Ante-dated and post-dated 1053
When date may be inserted 1053
Blanks in the instrument 1053
Amount 1054
Reasonable time 1054
"With interest" added 1054
Incomplete instrument not delivered . 1054
Delivery 1054
Stolen instrument 1055
Presumptions 1055
Conditional delivery 1055
Construction where instrument is ambiguous 1055
Interest 1055
Joint obligors 1055
Liability of person signing in trade or assumed name 1055
Signature by agent 1056
Agent's authority 1056
Liability of person signing as agent.. 1056
Signature by corporate officers 1056

PAGE
Signature by procuration 1056
Indorsement by infant or corporation. 1056
Forged signatures 1056
Forged indorsement 1057
Bearer instruments 1057
Certification of check with forged indorsement 1057
Bank's liability for payment 1057
Consideration 1057
What constitutes consideration 1057
Illegal consideration 1057
What constitutes holder for value .. 1058
Effect of want of consideration 1058
Liability of accommodation party ... 1058
Primary liability 1058
Secondary liability 1058
Corporations 1058
Partners 1058
Knowledge of accommodation party 1058
What constitutes negotiation 1058

Regulations Governing Indorsements

Methods of indorsement 1059
Indorsement must be of entire instrument 1059
Kinds of indorsement 1059
Kinds of indorsement (*f.* 10) 1059
Special indorsement: indorsement in blank 1059
Blank indorsement; how charged to special indorsement 1060
When indorsement is restrictive 1060
Effect of restrictive indorsement; rights of indorsee 1060
Qualified indorsement 1060
Conditional indorsement 1060
Indorsement of instrument payable to bearer 1061
Indorsement where payable to two or more persons 1061
Effect of instrument drawn or indorsed to a person as cashier 1061
Indorsement where name is wrong .. 1061
Indorsement in representative capacity 1061
Time of indorsement 1061
Place of indorsement; presumption .. 1061
Continuation of negotiable character. 1061
Striking out indorsement 1061
Transfer without indorsement 1062
When prior party may negotiate instrument 1062

Rights and Liabilities

Right of holder to sue 1062
Notice before full amount is paid .. 1063
When title is defective 1063
Notice of defect 1063
Stolen instruments 1063
Rights of holder in due course 1063
Instruments issued in violation of law 1064
When a negotiable instrument is subject to original defenses 1064
Holder in due course 1065
Liabilities in connection with negotiable instruments 1065

Presentment, Maturity, Payment, Notice of Dishonor, Discharge

Presentment 1067
Time of maturity 1070
What constitutes payment in due course 1071
Notice of dishonor 1071
Notice of protest (*f.* 11) 1071
Waiver of demand and notice by indorser (*f.* 12) 1074
Certificate of service of notice of protest (*f.* 13) 1076
Discharge 1076
Cancellation: burden of proof 1078
Alteration of instrument 1078

Bills of Exchange

Nature of bills of exchange 1079
Acceptance of bill of exchange 1079
Accepted bill of exchange (*f.* 14) . 1080
Presentment for acceptance 1081
Protest 1083
Acceptance for honor 1084
Bills of exchange in a set 1085

Promissory Notes, Checks, Negotiable Bonds

Promissory note defined 1086
Certificate of deposit 1086
Checks 1086
Certified check (*f.* 15) 1087
New York State provisions..... 1088
No stopping payment after certification 1088
Recovery of a forged check..... 1088
Negotiable bonds made nonnegotiable 1088
Legal effect of indorsements 1088
Duty and responsibility of bank collecting agents 1089

Trade and Banker's Acceptances

Trade acceptances 1089
Trade acceptance (*f.* 16) 1090
Banker's acceptance 1089
Letters of credit 1090

Interest

Definition 1090
Rate of interest after maturity 1092
Stopping interest 1092
"United States Rule" 1093

Usury

Definition 1093
Exceptions to the general usury rule.. 1094
Transactions not classified as usurious 1094
When contract is void 1095
When interest is forfeited 1095
When usurious excess is forfeited..... 1095
New York State rule 1095
Misdemeanors 1095

SECTION 24

NEGOTIABLE INSTRUMENTS

Fundamentals of Transactions

NATURE AND ORIGIN OF NEGOTIABLE INSTRUMENTS.—Negotiable instruments include checks, promissory notes and bills of exchange. These instruments, and most of the rules governing their use, were developed by merchants to meet requirements of trade. The main characteristics of a negotiable instrument are simplicity of form, the ease with which it is transferred from hand to hand, and the advantageous legal position which a holder in due course possesses. Generally speaking, **negotiable instruments** and **commercial paper** are similar terms and may be used interchangeably.

An instrument becomes negotiable when it meets requirements prescribed by the **Uniform Negotiable Instruments Act.** In the event the instrument fails to meet the requirements of negotiability, it may nevertheless represent a good and valid obligation like any other contract but it cannot be negotiated as the term is generally understood.

It is intended that negotiable instruments be transferred freely from hand to hand and as nearly as is possible like money—free of any defenses which an earlier holder may have asserted, and additionally free from claims of other parties. Transfer of the instrument in conformity with the Uniform Negotiable Instruments Act to a holder in due course carries complete legal title to the instrument with the right to recover the face value thereof in his own name, regardless of previous infirmities that might have been in the instrument. It should be noted, however, that not all so-called infirmities can be thus cleansed out of the instrument, since some of them attach to the instrument itself rather than the circumstances surrounding its issue.

REQUISITES OF NEGOTIABILITY.—"An instrument to be negotiable must conform to the following requirements:

1. It must be in writing and signed by the maker or drawer;
2. Must contain an unconditional promise or order to pay a sum certain in money;
3. Must be payable on demand, or at a fixed or determinable future time;
4. Must be payable to order or to bearer; and
5. Where the instrument is addressed to a drawee, he must be named or otherwise indicated therein with reasonable certainty." (Uniform Negotiable Instruments Act, Section 1.)

Not only is the instrument required to contain the above mentioned requisites, but it must also be voluntarily delivered to the payee. There is a presumption, however, that if an instrument is in the hands of a

holder in **due course**, there was a valid delivery of the instrument at the time **of its inception**.

Negotiation.—An instrument is negotiated when it is transferred from one holder to another. Transfer of a **bearer** instrument is completed by mere voluntary physical delivery, and of an **order** instrument by indorsement and delivery.

Indorsement.—Indorsement is the technical act of signing one's name, with or without words of qualification, to an instrument for purpose of transfer. To complete an indorsement, there must be a delivery of the instrument. The several forms of indorsement will be subsequently treated.

Liability of Parties.—The liability of a party to an instrument is either **primary** or **secondary.** The person primarily liable on an instrument is the person who, by its terms, is absolutely required to pay it. All other parties are secondarily liable. To be liable on an instrument, needless to say, the parties named must appear thereon either as maker, drawer, indorser, or acceptor.

Warranties.—Each person negotiating an instrument, whether by mere delivery in the case of a bearer instrument or by indorsement on an order instrument, warrants:

1. That the instrument is genuine and in all respects what it purports to be;
2. That he has good title to it;
3. That all prior parties had capacity to contract; and
4. That he has no knowledge of any fact which would impair the validity of the instrument or render it valueless. (See U.N.I. Act, Section 65.)

CLASSIFICATION OF INSTRUMENTS.—Although there are many types of negotiable instruments, they may be broadly classified as: (1) promissory notes, (2) bills of exchange, and (3) checks.

Promissory Notes.—A promissory note is an unconditional promise in writing made by one person to another, signed by the maker, en-

$ 500.00 New York, November 3, 19—

Sixty days after date I promise to pay to the order of Henry Smith

Five Hundred and no/100 Dollars

With interest at the rate of 6% per annum

John Jackson

FIG. 1. Promissory Note Made by Individual

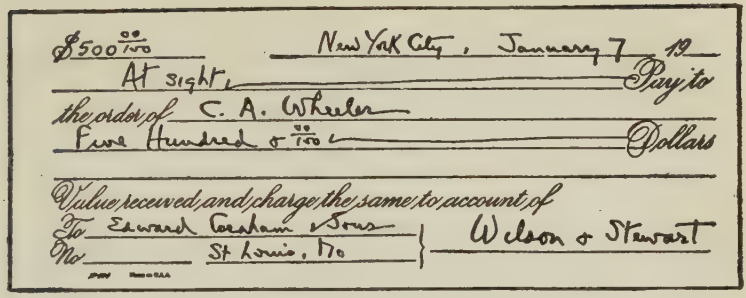
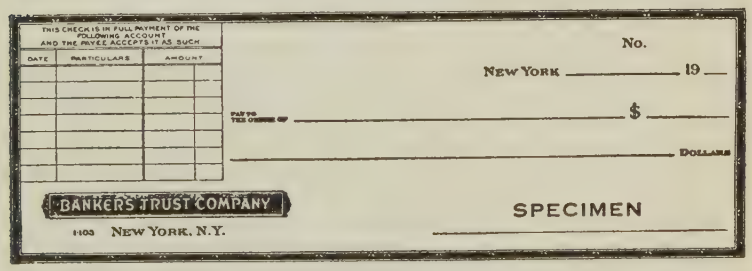


FIG. 2. A Typical Draft or Bill of Exchange

gaging to pay on demand or at a fixed or determinable future time a sum certain in money to order or to bearer. (See U.N.I. Act, Section 184.) An ordinary form of promissory note made by an individual is shown in Fig. 1.

Bill of Exchange.—"A bill of exchange is an unconditional order in writing addressed by one person to another, signed by the person giving it, requiring the person to whom it is addressed to pay on demand or



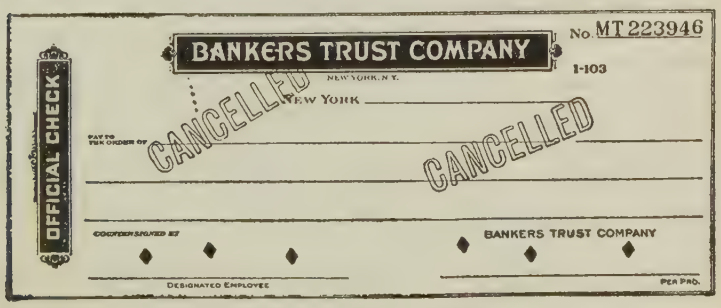


FIG. 3. Typical Checks

at a fixed or determinable future time, a sum certain in money to order or to bearer." (U.N.I. Act, Section 126.) (See Fig. 2.)

"An **inland bill of exchange** is a bill which is, or on its face purports to be, both drawn and payable within the State. Any other bill is a foreign bill. Unless the contrary appears on the face of the bill, the holder may treat it as an inland bill." (U.N.I. Act, Section 129.)

Checks.—"A check is a bill of exchange drawn on a bank payable on demand." (U.N.I. Act, Section 185.) The checks shown in Fig. 3 are typical.

PRESENTMENT AND DEMAND FOR PAYMENT.—This must be made in conformity with the terms of the instrument in order to charge the secondary parties or the drawer and indorsers. "Presentment for payment is not necessary in order to charge the person primarily liable on the instrument; but if the instrument is, by its terms, payable at a special place, and he is able and willing to pay it there at maturity and has funds there available for that purpose, such ability and willingness are equivalent to a tender of payment upon his part." (U.N.I. Act, Section 70.)

Where the instrument is not payable on demand, presentment must be made on the day it falls due. Where it is payable on demand, presentment must be made within a reasonable time after its issue except that, in the case of a bill of exchange, presentment for payment will be sufficient if made within a reasonable time after the last negotiation thereof. (U.N.I. Act, Section 71.)

Time of Maturity.—Every negotiable instrument is payable at the time fixed therein without grace. When the day of maturity falls upon a Sunday or holiday, the instrument is payable on the next succeeding business day. Instruments falling due or becoming payable on Saturday are to be presented for payment on the next succeeding business day, except that instruments payable on demand may, at the option of the holder, be presented for payment before twelve o'clock noon on Saturday when that entire day is not a holiday. (See U.N.I. Act, Section 85.)

Protest.—In order to fix the liabilities of indorsers and to hold them liable on the instrument, it is necessary to protest foreign bills of exchange in the event of nonpayment. Protest is not necessary on inland bills of exchange, although as a matter of business practice protest is usually made on all bills of exchange following default.

Discharge of Instrument.—Ordinarily negotiable instruments are discharged by payment in due course by the primary party. Negotiable instruments may, however, be also discharged by payment in due course by the party accommodated where the instrument is made or accepted for his accommodation; by the intentional cancellation thereof by the holder; by any other act which will discharge a simple contract for the payment of money; or when the principal debtor becomes the holder of the instrument at or after maturity in his own right. (See U.N.I. Act, Section 119.)

Discharge of Indorsers.—Any party with secondary liability on an instrument is discharged by any act which discharges the instrument; by the intentional cancellation of his signature by the holder; by the

discharge of a prior party; by a valid tender of payment made by a prior party; by a release of the principal debtor, unless the holder's right of recourse against the secondary party is reserved; or by any agreement extending the time of payment or postponing the holder's right to enforce the instrument, unless the right of recourse against such party is expressly reserved. (See U.N.I. Act, Section 120.)

Sections of the Uniform Negotiable Instruments Act

DEVELOPMENT OF UNIFORM NEGOTIABLE INSTRUMENTS ACT.—The law governing negotiable instruments developed from ethical rules and customs of merchants and gradually became a part of the common law, generally referred to as the Law Merchant. England adopted a Uniform Negotiable Instruments Act in 1882, and since that time such legislation has been enacted in more than 40 English colonies and dependencies. In 1895 the preparation of a Uniform Negotiable Instruments Act was begun in this country, and it ultimately was adopted in all of the 48 states of the United States. The Uniform Negotiable Instruments Act is a codification of the common law of negotiable instruments. Although the statute supersedes the common law, it is often necessary to refer to the common law and even to the law merchant for an interpretation of some rule in the light of its history. In the following sections the principles given are those of the Uniform Negotiable Instruments Act, and in some instances court decisions and comments interpreting the statute are given immediately after a given Section of the law.

GENERAL REQUIREMENTS—FORM OF THE INSTRUMENT.—Section 1. "An instrument to be negotiable must conform to the following requirements:

1. It must be in writing and signed by the maker or drawer;
2. Must contain an unconditional promise or order to pay a sum certain in money;
3. Must be payable on demand, or at a fixed or determinable future time;
4. Must be payable to order or to bearer; and
5. Where the instrument is addressed to a drawee, he must be named or otherwise indicated therein with reasonable certainty."

Writing.—May be with pencil, ink, crayon, or any means to record a signature (25 Minn. 160) or figures or a mark may be used in lieu of the proper name, and a party thereby intending to may bind himself just as effectively by using such. (1 Denio 471.)

Signature.—A person as above indicated can make any mark or initial he may choose to adopt, and such signature is just as effective except for the matter of proof. (100 So. 200.)

Order.—An instrument payable to a named person and not payable to order or bearer is not negotiable. (137 Ky. 362; 161 N.Y. App. Div. 827; 156 N.Y. App. Div. 807; and 157 Miss. 132.)

Certainty as to Sum.—Section 2. "The sum payable is a sum certain within the meaning of this Act although it is to be paid:

1. With interest; or
2. By stated instalments [see instalment promissory note, Fig. 4, and property improvement note, Fig. 5]; or
3. By stated instalments with a provision that upon default in payment of any instalment or of interest, the whole shall become due [see acceleration clause, Fig. 6]; or
4. With exchange, whether at a fixed rate or at the current rate; or
5. With costs of collection or an attorney's fee, in case payment shall not be made at maturity.

App. No.....

READ CAREFULLY

All signatures must be written in ink.

Do not cross out, change or erase any signature or any part of this note.

A married woman must sign her own first name: for example — Mary A. Brown—not Mrs. Henry B. Brown.

Bring or send this note when returning your completed application.

Your application will receive prompt consideration and you will be notified as soon as this loan is approved.

If you wish to make your payment on a particular day of the month, please so indicate in the space provided on application.

PL No.....

App. No.....

$.....

PROMISSORY NOTE

BANKERS TRUST COMPANY

CONSUMER CREDIT DEPARTMENT

New York, N. Y. .....19.....
(Do not fill in date)

For value received, the undersigned promises to pay to the order of Bankers Trust Company (hereinafter called the "Bank") at its office at 16 Wall Street, New York, New York, the sum of.....
Dollars ($.....) (hereinafter called the "Principal Amount") in United States currency in ..... equal successive monthly instalments of ..... Dollars ($.....) each, the first such instalment to be paid on the ..... day of ....., 19....., and subsequent instalments to be paid on the same day of each succeeding calendar month until all such payments have been made.

The Bank will deduct in advance from the Principal Amount a charge equal to four and one-third per centum per annum of said Principal Amount, which is interest calculated on unpaid principal balances at the rate of sixty-nine one-hundredths of one per centum per month on a twelve-months loan; seventy-one one-hundredths of one per centum per month on a fifteen-months loan; seventy-two one-hundredths of one per centum per month on an eighteen-months loan; or seventy-four one-hundredths of one per centum per month on a loan for twenty-four months.

Whenever an instalment, the maturity of which has not been theretofore accelerated, is not paid on the day as above agreed, the undersigned promises to pay to the holder hereof (in lieu of additional interest on such delinquent instalment payment) a fine of four cents per dollar on the part of such instalment representing Principal Amount which has become due and remains unpaid for a period in excess of five days, provided that such fine shall not exceed two dollars and only one fine shall be collected on any such instalment regardless of the period during which it remains in default, and provided further that the aggregate of such fines collected in connection with any loan, or renewal thereof, shall not exceed two per centum of such loan and shall in no event exceed fifteen dollars.

Should the undersigned or any endorser or guarantor of this note fail in whole or in part to make any instalment payment hereunder when due, or die, become insolvent, fail in business, be dissolved or make a general assignment for the benefit of creditors, or if any proceeding of any nature under the Bankruptcy Act, as amended, be commenced by or against, or any proceedings under Article 45 of the New York Civil Practice Act as amended, be commenced against, or if a receiver be appointed of, or a writ or order of attachment or garnishment be issued or made against any of the property, assets or income, or any part thereof, of the undersigned or any endorser or guarantor of this note, then the holder hereof may at its option, accelerate the maturity of the instalments thereafter to become due hereunder by making an entry to such effect on its records, in which event the unpaid balance of this note (being the total of the monthly instalments above set forth remaining unpaid at the time together with any fines which have been theretofore charged, and remain unpaid) shall become immediately due and payable without demand or notice; and upon failure to pay such unpaid balance when due as aforesaid it shall bear interest from the date of such accelerated maturity, at the legal rate, until paid.

The undersigned promises to pay to the holder hereof the actual expenditures, including attorneys' fees of 15% of said unpaid balance of this note, should legal proceedings be instituted to collect any amount due hereon.

The undersigned hereby gives the Bank a lien for the full amount of this note with interest as well as for the full amount of all other liabilities to the Bank upon all the property and securities now or at any time hereafter given unto or left in the possession of the Bank by the undersigned, whether for the express purpose of being used by the Bank as collateral security or for any other or different purpose, and also upon the balance of any deposit account of the undersigned with the Bank at any time existing.

No extension of time for payment of all or any part of the amount owing hereon at any time or times shall affect the liability of the undersigned, or any surety guarantor, or endorser hereof. The undersigned and all sureties, guarantors, endorsers, hereby severally waive demand and presentment for payment, notice of non-payment, notice of protest, and protest of this note.

The undersigned hereby agrees that additional makers, endorsers, guarantors, or sureties may become parties hereto, either with or without notice to the undersigned, and without affecting his liability hereon and hereunder.

The Bank is authorized by the undersigned, without notice to him and without affecting his obligations herein, (1) to date this note as of the day when the loan evidenced hereby is made, (2) to fill in any blank spaces in this note to conform to the terms upon which the loan relative hereto is made, and (3) to return this note to any of the undersigned when it is paid.

"Undersigned," wherever used herein, shall mean all signers hereof, jointly and severally.

SIGNATURES (write in full)	RESIDENCE ADDRESS
(1) Borrower.....	.....
(2) Co-Maker..... (Wife or Husband of Borrower)	.....
(3) Co-Maker.....	.....
.....	.....
.....	.....

FIG. 4. An Instalment Promissory Note

READ CAREFULLY

All signatures must be written in ink.

Do not cross out, change or erase any signature or any part of this note.

A married woman must sign her own first name, for example — Mary A. Brown—not Mrs. Henry B. Brown.

Bring or send this note when returning your completed application.

Acct. No.....

App. No.....

$.....

PROPERTY IMPROVEMENT NOTE

BANKERS TRUST COMPANY

CONSUMER CREDIT DEPARTMENT

New York, N. Y., ...19.....

For value received, the undersigned promises to pay to the order of .....at the office of BANKERS TRUST COMPANY, 16 Wall Street, New York, N. Y., the sum of..... Dollars ($.....) in United States currency, in..... .....equal successive monthly instalments of..... Dollars ($.....) each, (except that the final instalment may be more or less) on the.....day of each month, commencing on..... .....19....., until all such payments have been made.

Should the undersigned fail, in whole or in part, to make any instalment payment hereunder when due, the holder hereof may, at its option, accelerate the maturity of the instalments thereafter to become due by making an entry to such effect on its records, in which event the unpaid balance of this note shall become immediately due and payable without demand or notice and shall bear interest from the date of such acceleration at the legal rate until paid.

Whenever an instalment, the maturity of which has not been theretofore accelerated, is not paid on the day as above agreed, the undersigned promises to pay to the holder hereof a fine of five cents per dollar of such instalment which has become due and remains unpaid for a period in excess of fifteen days. Such fine shall not exceed five dollars in respect to any one such late payment.

The undersigned promises to pay to the holder hereof the actual expenditures, including attorneys' fees of 15% of said unpaid balance of this note, should legal proceedings be instituted to collect any amount due hereon.

All parties hereto, whether makers, endorsers, sureties, guarantors, or otherwise, hereby waive all demand, notice of dishonor, and protest of this note.

BANKERS TRUST COMPANY is authorized by the undersigned, without notice to him and without affecting his obligations herein, (1) to date this note as of the day that the loan evidenced hereby is made, (2) to fill in any blank spaces in this note to conform to the terms upon which the loan relative hereto is made, and (3) to return this note to any of the undersigned when it is paid.

"Undersigned," wherever used herein, shall mean all signers hereof, jointly and severally.

SIGNATURE..... .....

SIGNATURE..... .....

FIG. 5. Property Improvement Note, Payable in Instalments

Sum Certain.—The requirement is met if sufficient information is given so that by computation a fixed sum can be arrived at.

Attorneys' Fees.—An agreement to pay attorneys' fees after maturity in case of nonpayment or suit does not destroy the negotiability of a bill of exchange. (52 Fed. 191; 126 Misc. 114; 168 N.Y. App. Div. 75; 278 N.Y. 364; 55 Colo. 378.)

PROMISE TO PAY UNCONDITIONAL.—Section 3. "An unqualified order or promise to pay is unconditional within the meaning of this Act though coupled with:

1. An indication of a particular fund out of which reimbursement is to be made, or a particular account to be debited with the amount; or
2. A statement of the transaction which gives rise to the instrument. But an order or promise to pay out of a particular fund is not unconditional."

Acceleration Clause

It is expressly agreed, that, if default be made in the payment of any one of the instalments aforesaid, at the time and place aforesaid, when and where the same becomes due and payable, as aforesaid, then, and in that event, the whole unpaid principal sum shall, at the election of the legal holder hereof, at once become and be due and payable, anything hereinbefore contained, to the contrary notwithstanding.

FIG. 6. Acceleration Clause Applying in Case of Default

Principal Fund Indicated.—Payment out of a particular fund destroys the negotiability of the instrument. Any indication on a note to the effect that it is subject to a collateral instrument also destroys its negotiability. (134 Ark. 374; 32 N.Y.S. 2d 181.) An order payable out of a specified fund is not a bill of exchange but is an assignment of the funds of the drawer to the amount specified. (54 N.Y. 14.) The determining factor is whether the drawee is limited to a particular fund or whether he can charge the amount of the bill against the general account of the drawer when the specific fund named in the instrument is insufficient to satisfy the instrument. (61 N.Y. 251; 141 P. 996.) A mere recital referring to the transaction for which the note is given is separate and distinct from the note and will not indicate a particular fund. (247 N.Y. 538; 136 U.S. 268; 64 N.Y. 155; 374 Ill. 298.)

TIME OF PAYMENT.—Section 4. "An instrument is payable at a determinable future time, which is expressed to be payable:

1. At a fixed period after date or sight; or
2. On or before a fixed or determinable future time specified therein [see instalment note specifying fixed times of payment, Fig. 7]; or
3. On or at a fixed period after the occurrence of a specified event, which is certain to happen, although the time of happening be uncertain.

"An instrument payable upon a contingency is not negotiable, and the happening of the event does not cure the defect."

$250.00 New York, June 1st, 19—.

FOR VALUE RECEIVED, I promise to pay to the order of Richard Roe, at the Safe Trust Company, No. 1 Fifth Avenue, New York City, the sum of Two hundred fifty and no/100 dollars, in instalments as follows:

On the 1st day of July, 19—, Fifty dollars,
On the 1st day of August, 19—, Fifty dollars,
On the 1st day of September, 19—, Fifty dollars,
On the 1st day of October, 19—, Fifty dollars,
On the 1st day of November, 19—, Fifty dollars,

all with interest from date, at the rate of six per centum per annum.

John Doe.

FIG. 7. Instalment Note Specifying Fixed Times of Payment

Fixed Time.—The time must be indicated in the instrument itself. (113 U.S. 135.)

Future Time.—The event specified must be certain to happen. Any instrument payable at death or a given number of days or months after death is negotiable because death is an event that is certain, although the time of its happening is uncertain. (95 Fed. 212; 131 N.Y. 462; 275 Ky. 124; 266 Mass. 239.)

Contingent Time.—Notes or instruments payable when a person marries, becomes of age, etc., do not come within the statute, as the time depends on the happening of a contingency which may never happen. (16 N.Y.S. 2d. 799; 43 N.Y. App. Div. 458; 141 La. 970; 134 Mass. 245.)

ADDITIONAL PROVISIONS NOT AFFECTING NEGOTIABILITY.—Section 5. "An instrument which contains an order or promise to do any act in addition to the payment of money is not negotiable. But the negotiable character of an instrument otherwise negotiable is not affected by a provision which:

1. Authorizes the sale of collateral securities in case the instrument be not paid at maturity; or
2. Authorizes a confession of judgment if the instrument be not paid at maturity; or
3. Waives the benefit of any law intended for the advantage or protection of the obligor; or
4. Gives the holder an election to require something to be done in lieu of payment of money.

"But nothing in this Section shall validate any provision or stipulation otherwise illegal."

Collateral Security.—A promise to furnish additional collateral further to secure an instrument for the payment of money does not render the instrument nonnegotiable. (164 N.E. 113; 128 Mass. 129.)

Some typical provisions from a bank collateral note regarding collateral are shown in Fig. 8.

As collateral security for the payment of this note and each monthly instalment as above provided, or any other liability or liabilities of the undersigned to the Bank, due or to come due, direct or contingent, whether now existing or hereafter arising, the undersigned hereby pledges and assigns to the Bank the following property:

.....

.....

.....

In the event of the failure of the undersigned to make any monthly instalment payment as herein agreed, or in the event that the collateral to this note shall decline in value or become unsatisfactory to the Bank, the undersigned agrees to deliver to the Bank such additional collateral or make such payment on account as shall be satisfactory to the Bank.

The undersigned hereby gives to the Bank a lien for the full amount of this note with interest, as well as for the full amount of all other liabilities to the Bank, upon all the property and securities now or at any time hereafter given unto or left in the possession of the Bank by the undersigned, whether for the express purpose of being used by the Bank as collateral security or for any other or different purpose, and also upon the balance of any deposit account of the undersigned with the Bank at any time existing.

Should the undersigned or any endorser or guarantor of this note fail in whole or in part to make any instalment payment hereunder when due, or fail to deliver on demand such additional collateral or to make such payment on account as shall be satisfactory to the Bank, or die, become insolvent, fail in business, be dissolved or make a general assignment for the benefit of creditors, or if proceedings of any nature under the Bankruptcy Act, as amended, be commenced by or against, or any proceedings under Article 45 of the New York Civil Practice Act as amended, be commenced against, or if a receiver be appointed of, or a writ or order of attachment or garnishment be issued or made against any of the property, assets, or income, or any part thereof, of the undersigned or any endorser or guarantor of this note, then the holder hereof may, at its option, accelerate the maturity of the instalments thereafter to become due hereunder by making an entry to such effect in its records, in which event the unpaid balance of this note (being the total of the monthly instalments above set forth remaining unpaid at the time, together with any fines which have been theretofore charged and remain unpaid) shall become immediately due and payable without demand or notice; and upon failure to pay such unpaid balance when due as aforesaid it shall bear interest from the date of such accelerated maturity, at the legal rate, until paid.

Upon the happening of any of such above events, full power and authority are hereby given to the Bank to apply to the payment of this note or to the payment of any other liabilities of the undersigned to the Bank, whether now existing or hereafter contracted, and whether due or not due, any and all monies now or hereafter in the hands of the Bank on deposit or otherwise to the credit of or belonging to the undersigned, and to sell, assign and deliver the whole of the collateral security or any part thereof, or any substitute therefor or additions thereto, or any other property or securities given unto or left in the possession of the Bank by the undersigned, whether for the express purpose of being used by the Bank as collateral security or for any other or different purpose, at any broker's board, or at public or private sale, at such price or prices as the Bank may deem best, without demand, advertisement, or notice of any kind, all of which are hereby expressly waived. At any such sale,

FIG. 8. Note Provisions Regarding Collateral

the Bank may itself purchase any or all of the property sold, free from any claim or right of redemption on the part of the undersigned which are hereby waived and released.

In case of any sale or other disposition of any of the property aforesaid, after deducting all costs and expenses of every kind, including attorneys' fees of 15% of the unpaid balance of the loan evidence hereby, the Bank may apply the residue of the proceeds of the sale or sales so made to pay one or more or all of the said obligations or liabilities to it, whether then due or not due, and the undersigned agrees to be and remain liable to the Bank for any deficiency.

The Bank may at any time, whether or not a default exists, transfer into its own name or that of its nominee any or all property held as security hereunder.

The Bank may transfer this note and may deliver the said collateral security or the remainder thereof to the transferee, who shall thereupon become vested with all the powers and rights above given to the Bank in respect thereto and the Bank shall thereafter be forever relieved and fully discharged from any liability or responsibility in the matter.

FIG. 8. Note Provisions Regarding Collateral (Continued)

Election by Holder.—An instrument executed by a railroad in the form of a note containing an absolute and unconditional promise to pay money on a certain date is negotiable, although it does give an election to the payee to exchange it for stock before its maturity. (22 N.Y. 114; 36 Barb. 307.)

Goods in Lieu of Money.—A written promise to pay a sum of money in goods is not a valid note but is a mere contract.

Confession of Judgment.—Confession of judgment is effective only at maturity. Where the instrument authorizes confession of judgment before maturity, it is not negotiable under the statute.

OMISSIONS; SEAL; KIND OF MONEY.—Section 6. "The validity and negotiable character of an instrument are not affected by the fact that:

1. It is not dated; or
2. Does not specify the value given, or that any value has been given therefor; or
3. Does not specify the place where it is drawn or the place where it is payable; or
4. Bears a seal; or
5. Designates a particular kind of current money in which payment is to be made.

"But nothing in this section shall alter or repeal any statute requiring in certain cases the nature of the consideration to be stated in the instrument."

Lack of Date.—The absence of a date on a note does not render it invalid. (107 N.Y.S. 310; 137 Kan. 669.)

Omission of "Value Received."—The omission of these words does not impair the note or affect the presumption that it was given for value. (49 N.Y. App. Div. 131; 236 Mass. 453.)

Seal Is Surplusage.—Such surplusage does not affect the negotiability. (143 N.Y. 374; 198 N.Y. 209; 91 N.E. 587.)

Particular Kind of Money.—An instrument payable in gold dollars is negotiable. (43 N.Y. 209; 19 Johns 144.)

Requirement of Stating Consideration.—Some states require that instruments given for patent rights or speculative consideration must have such fact stated in the note.

WHEN INSTRUMENT IS PAYABLE ON DEMAND.—Section 7. "An instrument is payable on demand:

1. where it is expressed to be payable on demand, or at sight, or on presentation; or
2. in which no time for payment is expressed.

"Where an instrument is issued, accepted or indorsed when overdue, it is, as regards the person so issuing, accepting or indorsing it, payable on demand."

Due Date of Demand Instrument.—Where a note is payable on demand with no qualifying provisions, it is due as of the date of execution and delivery. (32 N.Y.S. 2d 239; 237 Ala. 658; 202 N.Y. App. Div. 499.)

WHEN INSTRUMENT IS PAYABLE TO ORDER.—Section 8. "The instrument is payable to order where it is drawn payable to the order of a specified person or to him or his order. It may be drawn payable to the order of:

1. A payee who is not maker, drawer or drawee; or
2. A drawer or maker; or
3. A drawee; or
4. Two or more payees generally; or
5. One or some of several payees; or
6. The holder of an office for the time being.

"Where the instrument is payable to order, the payee must be named or otherwise indicated therein with reasonable certainty."

Specified Person Only.—An instrument payable to a specified person without the word "order" is not negotiable. (209 Ky. 230.) Such a note is shown in Fig. 9.

$100.00 New York, June 1st, 19—.

Thirty days after date, I promise to pay to John Doe, One Hundred Dollars, for value received with interest.

Richard Roe

FIG. 9. Nonnegotiable Note, Payable to a Specified Person Only

Alternate Payees.—A check drawn in the "alternative" is negotiable. (257 N.Y. 441; 114 Neb. 230.)

Holder of an Office.—A check payable to the "Collector of Internal Revenue" is negotiable. (6 N.Y. 124.)

WHEN INSTRUMENT IS PAYABLE TO BEARER.—Section 9. "The instrument is payable to bearer:

1. When it is expressed to be so payable; or
2. When it is payable to a person therein or bearer; or
3. When it is payable to the order of a fictitious or non-existing person, and such fact was known to the person making it so payable; or
4. When the name of the payee does not purport to be the name of any person; or
5. When the only or last indorsement is an indorsement in blank."

Particular Bearer.—A check payable to a particular bearer, as "to the order of bearer B. Cohen," is not payable to a bearer generally and cannot be negotiated without the indorsement of the payee named. (68 N.Y.S. 35; 162 S.W. 314.)

A check drawn "to the order of cash" was held payable to bearer. (146 Misc. 732.)

Fictitious Person.—Where an instrument is made payable to the order of a fictitious or nonexisting person and such fact was known to the person making it so payable, the instrument is payable to bearer. (10 N.E. 2d 457; 185 Ga. 748; 215 N.Y. 726.)

Last Indorsement Blank.—An indorsement in blank will not make a nonnegotiable instrument negotiable. (25 N.Y.S. 2d 157; 155 N.C. 47.)

TERMS.—Section 10. "The instrument need not follow the language of this Act, but any terms are sufficient which clearly indicate an intention to conform to the requirements thereof."

PRESUMPTION AS TO DATE.—Section 11. "Where the instrument or an acceptance or any indorsement thereon is dated, such date is deemed prima facie to be the true date of the making, drawing, acceptance or indorsement as the case may be."

Ante-Dated and Post-Dated.—Section 12. "The instrument is not invalid for the reason only that it is ante-dated or post-dated, provided this is not done for an illegal or fraudulent purpose. The person to whom an instrument so dated is delivered, acquires title thereto as of the date of delivery."

An instrument post-dated or ante-dated for an illegal purpose is void to all persons having knowledge of it. Otherwise it is good. [8 Wend. (N.Y.) 478; 282 N.Y.S. 202.]

When Date May Be Inserted.—Section 13. "Where an instrument expressed to be payable at a fixed period after date is issued undated, or where the acceptance of an instrument payable at a fixed period after sight is undated, any holder may insert therein the true date of issue or acceptance, and the instrument shall be payable accordingly. The insertion of a wrong date does not void the instrument in the hands of a subsequent holder in due course; but as to him, the date so inserted is to be recorded as the true date." (54 N.Y. 234; 122 S.W. 756.)

BLANKS IN THE INSTRUMENT.—Section 14. "Where the instrument is wanting in any material particular, the person in possession thereof has a prima facie authority to complete it by filling up the blanks therein. And a signature on a blank paper delivered by the

person making the signature in order that the paper may be converted into a negotiable instrument, operates as prima facie authority to fill it up as such for any amount. In order, however, that any such instrument, when completed, may be enforced against any person who became a party thereto prior to its completion, it must be filled up strictly in accordance with the authority given and within a reasonable time. But if any such instrument, after completion, is negotiated to a holder in due course, it is valid and effectual for all purposes in his hands, and he may enforce it as if it had been filled up strictly in accordance with the authority given and within a reasonable time."

Amount.—One who accepts a draft with the amount in blank is liable to a bona fide holder thereof for the amount filled in, although such amount is larger than was contemplated by the acceptor. (21 N.Y. 531.)

Reasonable Time.—The blanks in a note are not filled within a reasonable time, as required by this section, where about a year elapsed between the giving of the note and the filling of the blanks. (101 N.E. 1124; 127 Or. 227.)

"With Interest" Added.—The holder is not permitted to add words which change the obligation from a noninterest-bearing to an interest-bearing one. (100 N.Y. 150, 2 N.E. 247.)

INCOMPLETE INSTRUMENT NOT DELIVERED.—Section 15. "Where an incomplete instrument has not been delivered, it will not, if completed and negotiated, without authority, be a valid contract in the hands of any holder, as against any person whose signature was placed thereon before delivery."

This section does not pertain to the delivery of incompleted instruments. (153 N.Y.S. 96; 140 N.Y. App. Div. 265.) An incomplete instrument never actually delivered is not negotiable and there can be no recovery even in the hands of a holder in due course. This applies to all stolen incompleted instruments.

DELIVERY.—Section 16. "Every contract on a negotiable instrument is incomplete and revocable until delivery of the instrument for the purpose of giving effect thereto. As between immediate parties, and as regards a remote party, other than a holder in due course, the delivery, in order to be effectual, must be made either by or under the authority of the party making, drawing, accepting or indorsing as the case may be; and in such case the delivery may be shown to have been conditional, or for a special purpose only, and not for the purpose of transferring the property in the instrument. But where the instrument is in the hands of a holder in due course, a valid delivery thereof by all parties prior to him so as to make them liable to him is conclusively presumed. And where the instrument is no longer in the possession of a party whose signature appears thereon, a valid and intentional delivery by him is presumed until the contrary is proved."

Act and intention are the essential constituents of a delivery which makes an instrument operative according to its terms. Whenever there has been a delivery of the instrument for the purpose of giving it such effect, it becomes a present and completed contract. (111 N.E. 263.)

An undelivered check is not regarded as property, and is of no force or effect whatsoever. (296 F. 882.)

Stolen Instrument.—When a negotiable instrument, complete on its face, is stolen from the maker or other party before delivery, a subsequent holder in due course will acquire a good title as against the person from whom it was stolen. (190 N.Y. 167; 82 N.E. 1108.)

Presumptions.—The possession and production of a negotiable instrument by a person other than the maker raises a presumption of delivery to the holder and that such holder is the owner of the instrument. (75 N.Y. 91; 49 N.E. 1101.)

Conditional Delivery.—A certificate of deposit issued by a bank is one of the class of instruments where the section declares that delivery "may be shown to have been conditional or for a special purpose only." (140 N.Y.S. 231; 110 N.Y. 654.)

CONSTRUCTION WHERE INSTRUMENT IS AMBIGUOUS.—Section 17. "Where the language of the instrument is ambiguous, or there are omissions therein, the following rules of construction apply:

1. Where the sum payable is expressed in words and also in figures and there is a discrepancy between the two, the sum denoted by the words is the sum payable; but if the words are ambiguous or uncertain, reference may be had to the figures to fix the amount;
2. Where the instrument provides for the payment of interest, without specifying the date from which interest is to run, the interest runs from the date of the instrument, and if the instrument is undated, from the issue thereof;
3. Where the instrument is not dated, it will be considered to be dated as of the time it was issued;
4. Where there is a conflict between the written and printed provisions of the instrument, the written provisions prevail;
5. Where the instrument is so ambiguous that there is doubt whether it is a bill or note, the holder may treat it as either at his election;
6. Where the signature is so placed upon the instrument that it is not clear in what capacity the person making the same intended to sign, he is to be deemed an endorser;
7. Where an instrument containing the words "I promise to pay" is signed by two or more persons, they are deemed to be jointly and severally liable thereon."

Interest.—Subdivision 2 of this Section refers to the computation of interest only when there is an agreement to pay interest. It does not apply where the instrument does not provide for interest. [139 N.Y. App. Div. 603.] When an instrument is payable with interest and rate not specified, the legal rate of the place of issue is presumed. (86 Neb. 103.)

Joint Obligors.—An executor and his wife were severally as well as jointly liable on note executed by them and payable to testator. (27 N.Y.S. 2d 127; 242 N.W. 877.)

LIABILITY OF PERSON SIGNING IN TRADE OR ASSUMED NAME.—Section 18. "No person is liable on the instrument whose signature does not appear thereon, except as herein otherwise expressly provided. But one who signs in a trade or assumed name will be liable to the same extent as if he had signed in his own name."

"A person may become a party to a bill or note, by any mark or designation he chooses to adopt, provided it is used as a substitute for his name and he intends to be bound by it." (9 N.Y. 571; See also 24 N.E. 994.)

SIGNATURE BY AGENT.—Section 19. "The signature of any party may be made by a duly appointed agent. No particular form of appointment is necessary for this purpose; and the authority of the agent may be established as in other cases of agency."

Agent's Authority.—An authority to make or indorse negotiable paper is subject to strict interpretation. The power will be construed as extending only to paper executed or indorsed in the business of the principal. Third parties cannot rely upon the agent's mere assumption of authority. They are bound to inquire as to the power of the agent. (52 N.Y.S. 681.)

LIABILITY OF PERSON SIGNING AS AGENT.—Section 20. "Where the instrument contains or a person adds to his signature words indicating that he signs for or on behalf of a principal, or in a representative capacity, he is not liable on the instrument if he was duly authorized; but the mere addition of words describing him as an agent, or as filling a representative character, without disclosing his principal, does not exempt him from personal liability."

Where an agent signs an instrument with the addition of words which are merely descriptive and the payee knows that such person is merely acting as agent for another and that he does not intend to bind himself individually, the agent is not personally liable to the payee. (107 N.Y. App. Div. 491.)

Signature by Corporate Officers.—Where a note is signed not in the name of the corporation, but in the name of an officer with an addition of the office he holds, the name of the office is deemed merely descriptive, and the officer is, as against a holder in due course of the instrument, liable individually and the corporation is not liable. (44 N.E. 1038.)

If, however, the instrument is subscribed with the name of a corporation and the name of an individual with the designation "Treas.," it is an obligation of the corporation, not of the Treasurer individually. (66 N.Y. 145.)

SIGNATURE BY PROCURATION.—Section 21. "A signature by 'procuration' operates as notice that the agent has but a limited authority to sign, and the principal is bound only in case the agent in so signing, acted within the actual limits of his authority."

INDORSEMENT BY INFANT OR CORPORATION.—Section 22. "The indorsement or assignment of the instrument by a corporation or by an infant passes the property therein, notwithstanding that from want of capacity, the corporation or infant may incur no liability thereon."

FORGED SIGNATURES.—Section 23. "Where a signature is forged or made without authority of the person whose signature it purports to be, it is wholly inoperative, and no right to retain the instru-

ment, or to give a discharge therefor, or to enforce payment thereof against any party thereto, can be acquired through or under such signature, unless the party, against whom it is sought to enforce such right, is precluded from setting up the forgery or want of authority."

"Though a person may be deceived as to the name of a man with whom he is dealing, if he dealt with and intended to deal with the visible person before him, a check may be properly endorsed by the imposter." (10 N.E. 2d 457.)

Forged Indorsement.—Where an instrument is not payable to bearer, so that the indorsement of the payee is required, title thereto cannot be transferred if the indorsement of the payee is forged and any bank or person making payment on the forged indorsement does so at his own peril. (85 N.E. 829; 112 F. 2d 409.)

Bearer Instruments.—Where an instrument is payable to bearer, since it may be negotiated without indorsement, the forgery of an indorsement on such an instrument does not preclude a transferee from acquiring good title thereto. (85 N.E. 829.)

Certification of Check with Forged Indorsement.—Where a wrongdoing forger procures certification of a check, funds represented thereby do not pass from the drawer and he can recover the same from the bank which has charged such debit to his account. (112 N.E. 1053.)

Bank's Liability for Payment.—A bank paying on a forged check indorsement to a person other than the payee gives the depositor an action against the bank. (33 N.Y.S. 2d 885; 246 N.W. 178.) A bank depositor is under a duty to detect forgeries of his own signature, but ordinarily he is in no position to know the signatures of payees and he therefore is under no duty to detect forged indorsements. (39 N.E. 2d 897.)

CONSIDERATION.—Section 24. "Every negotiable instrument is deemed prima facie to have been issued for a valuable consideration; and every person whose signature appears thereon to have become a party thereto for value."

This section is effective even though the words "Value Received" are not present. These words are now regarded merely as surplusage.

Where an action is brought on a negotiable instrument, in order to raise the question of lack of consideration, the defendant must allege affirmatively that the instrument was without consideration. (185 N.Y.S. 66; 215 Iowa 215.)

What Constitutes Consideration.—Section 25. "Value is any consideration sufficient to support a simple contract. An antecedent or pre-existing debt constitutes value; and is deemed such whether the instrument is payable on demand or at a future time.

"A valuable consideration may consist of some right, interest, profit or benefit accruing to one party, or some forbearance, detriment, loss or responsibility given, suffered or undertaken by the other." (108 N.E. 558; 145 S.E. 619.)

Illegal Consideration.—Instruments based on an illegal consideration are void. (173 N.E. 895.)

What Constitutes Holder for Value.—Section 26. "Where value has at any time been given for the instrument, the holder is deemed a holder for value in respect to all parties who became such prior to that time."

Section 27. "Where the holder has a lien on the instrument, arising either from contract or by implication of law, he is deemed a holder for value to the extent of his lien."

Effect of Want of Consideration.—Section 28. "Absence or failure of consideration is matter of defense as against any person not a holder in due course; and partial failure of consideration is a defense pro tanto whether the failure is of ascertained and liquidated amount or otherwise."

As between the original parties, the consideration of an instrument is a subject of inquiry. The maker may show that it was not given for a sufficient consideration, and it is immaterial whether the note is negotiable or nonnegotiable. (60 N.Y. 146; 291 N.Y.S. 302.) A holder in due course may enforce a negotiable instrument though there was an absence or failure of the consideration as between the original parties. (89 N.E. 1106; 109 N.Y.S. 818.)

LIABILITY OF ACCOMMODATION PARTY.—Section 29. "An accommodation party is one who has signed the instrument as maker, drawer, acceptor or indorser, without receiving value therefor, and for the purpose of lending his name to some other person. Such a person is liable on the instrument to a holder for value, notwithstanding such holder at the time of taking the instrument knew him to be only an accommodation party."

Primary Liability.—An accommodation maker is liable primarily to the payee or his assignee, and is not liable merely as a surety. (245 N.Y.S. 372; 159 N.W. 737.)

Secondary Liability.—Where one indorses a note for the accommodation of the maker, he becomes a mere surety. (131 N.Y.S. 157; 28 R.I. 338.)

Corporations.—Corporations are without power to become accommodation parties. (55 Fed. 465; 211 N.Y. 154.)

Partners.—A partner has no power to indorse the firm name for the accommodation of a third party. (44 N.Y. 680.)

Knowledge of Accommodation Party.—A holder for value of a negotiable instrument is entitled to recover the amount thereof from an accommodation indorser, although he knew at the time of taking the instrument that it was accommodation paper. (73 N.E. 1129.)

WHAT CONSTITUTES NEGOTIATION.—Section 30. "An instrument is negotiated when it is transferred from one person to another in such manner as to constitute the transferee the holder thereof. If payable to bearer, it is negotiated by delivery; if payable to order, it is negotiated by the indorsement of the holder completed by delivery."

Regulations Governing Indorsements

METHODS OF INDORSEMENT.—Section 31. "The indorsement must be written on the instrument itself or upon a paper attached thereto. The signature of the indorser without additional words is a sufficient indorsement."

An indorsement written in pencil is sufficient. And it may be by a mark or with the figures 1–2–8 with no name, where the indorser intends to bind himself thereby. [6 Hill (N.Y.) 443.]

Indorsement Must Be of Entire Instrument.—Section 32. "The indorsement must be an indorsement of the entire instrument. An indorsement, which purports to transfer to the indorsee a part only of the amount payable, or which purports to transfer the instrument to two or more indorsees severally, does not operate as a negotiation of the instrument. But where the instrument has been paid in part, it may be indorsed as to the residue."

Kinds of Indorsement.—Section 33. "An indorsement may be either special or in blank; and it may also be either restrictive or qualified, or conditional." Fig. 10 shows how indorsements of various kinds are worded.

Pay to the order of John Richards. Richard Roe	*Special Indorsement*
Richard Roe.	*Blank Indorsement*
Pay to John Doe only Richard Roe	*Restrictive Indorsement*
Pay without recourse to order of Ben Boe Richard Roe	*Qualified Indorsement*
On the next arrival of the Queen Mary in New York, Pay to the order of Jim Smith. Richard Roe	*Conditional Indorsement*

FIG. 10. Kinds of Indorsement

Special Indorsement: Indorsement in Blank.—Section 34. "A special indorsement specifies the person to whom, or to whose order the instrument is to be payable; and the indorsement of such indorsee is necessary to the further negotiation of the instrument. An indorsement in

blank specifies no indorsee, and an instrument so indorsed is payable to bearer, and may be negotiated by delivery."

Possession of a negotiable instrument indorsed in blank by the payee is presumptive evidence of the possessor's title to it. (211 N.Y.S. 486; 203 Ala. 446.)

Blank Indorsement; How Changed to Special Indorsement.—Section 35. "The holder may convert a blank indorsement into a special indorsement by writing over the signature of the indorser in blank any contract consistent with the character of the indorsement."

When Indorsement Is Restrictive.—Section 36. "An indorsement is restrictive, which either:

1. Prohibits the further negotiation of the instrument; or
2. Constitutes the indorsee the agent of the indorser; or
3. Vests the title in the indorsee in trust for or to the use of some other person.

"But the mere absence of words implying power to negotiate does not make an indorsement restrictive."

An indorsement "For Deposit" was held restrictive and prohibited further negotiation for any purpose except for collection for deposit to indorser's account. (277 N.Y. 223; 14 N.E. 2d 46.)

An indorsement on note "For deposit only" was restrictive in character and gave notice of the nonnegotiable character of the instrument to all parties into whose hands the note might come. (8 N.Y.S. 2d 158.)

Effect of Restrictive Indorsement; Rights of Indorsee.—Section 37. "A restrictive indorsement confers upon the indorsee the right:

1. To receive payment of the instrument;
2. To bring any action that the indorser could bring;
3. To transfer his rights as such indorsee, where the form of the indorsement authorizes him to do so.

"But all subsequent indorsees acquire only the title of the first indorsee under the restrictive indorsement."

An indorsement of a check "For collection" passes title to the check by reason of the fact that the indorsee in such case can sue in his own name or indorse the instrument to another for collection. (8 F. Supp. 72; 277 N.Y. 223.)

Qualified Indorsement.—Section 38. "A qualified indorsement constitutes the indorser a mere assignor of the title to the instrument. It may be made by adding to the indorser's signature the words 'Without recourse' or any words of similar import. Such an indorsement does not impair the negotiable character of the instrument." (See 172 Mich. 159; 262 N.Y. 215; 65 Ore. 450.)

Conditional Indorsement.—Section 39. "Where an indorsement is conditional, a party required to pay the instrument may disregard the condition, and make payment to the indorsee or his transferee, whether the condition has been fulfilled or not. But any person to whom an instrument so indorsed is negotiated, will hold the same, or the proceeds thereof, subject to the rights of the person indorsing it conditionally."

Indorsement of Instrument Payable to Bearer.—Section 40. "Where an instrument, payable to bearer, is indorsed specially, it may nevertheless be further negotiated by delivery; but the person indorsing specially is liable as an indorser to only such holders as make title through his indorsement."

Indorsement Where Payable to Two or More Persons.—Section 41. "Where an instrument is payable to the order of two or more payees or indorsees who are not partners, all must indorse, unless the one indorsing has authority to indorse for the others."

Negotiability is not affected by an instrument drawn to the order of several payees jointly. (257 N.Y. 441.)

Effect of Instrument Drawn or Indorsed to a Person as Cashier.—Section 42. "Where an instrument is drawn or indorsed to a person as 'Cashier' or other Fiscal Officer of a Bank or Corporation, it is deemed prima facie to be payable to the Bank or Corporation of which he is such Officer; and may be negotiated by either the indorsement of the Bank or Corporation, or the indorsement of the Officer."

Indorsement Where Name Is Wrong.—Section 43. "Where the name of a payee or indorsee is wrongly designated or misspelled, he may indorse the instrument as therein described, adding, if he thinks fit, his proper signature."

Indorsement in Representative Capacity.—Section 44. "Where any person is under obligation to indorse in a representative capacity, he may indorse in such terms as to negative personal liability."

As to executors, see 101 N.Y. 554; 5 N.E. 452. Also see 152 N.Y.S. 201; 124 Neb. 542; 198 N.E. 651.

TIME OF INDORSEMENT.—Section 45. "Except where an indorsement bears date after the maturity of the instrument, every negotiation is deemed prima facie to have been effected before the instrument was overdue."

PLACE OF INDORSEMENT; PRESUMPTION.—Section 46. "Except where the contrary appears, every indorsement is presumed prima facie to have been made at the place where the instrument is dated."

This is regarded as simply declaratory of the common law. (183 N.Y. 92.) The validity of a contract of indorsement is ordinarily determined by the law of the place where the indorsement is made. (183 N.Y. 92; 238 Mass. 62; 254 N.Y. 488.)

CONTINUATION OF NEGOTIABLE CHARACTER.—Section 47. "An instrument negotiable in its origin continues to be negotiable until it has been restrictively indorsed or discharged by payment or otherwise."

It is to be noted, however, that negotiable instruments do not lose their negotiability simply by the arrival of the maturity date. (238 N.Y. App. Div. 262; 260 N.W. 341.)

STRIKING OUT INDORSEMENT.—Section 48. "The holder may at any time strike out any indorsement which is not necessary to his title. The indorser whose indorsement is struck out, and all in-

dorsers subsequent to him, are thereby relieved from liability on the instrument."

TRANSFER WITHOUT INDORSEMENT.—Section 49. "Where the holder of an instrument payable to his order transfers it for value without indorsing it, the transfer vests in the transferee such title as the transferor had therein, and the transferee acquires, in addition, the right to have the indorsement of the transferor. But for the purpose of determining whether the transferee is a holder in due course, the negotiation takes effect as of the time when the indorsement is actually made."

WHEN PRIOR PARTY MAY NEGOTIATE INSTRUMENT.—Section 50. "Where an instrument is negotiated back to a prior party, such party may, subject to the provisions of this Act, reissue and further negotiate the same. But he is not entitled to enforce payment thereof against any intervening party to whom he was personally liable."

Rights and Liabilities

RIGHT OF HOLDER TO SUE.—Section 51. "The holder of a negotiable instrument may sue thereon in his own name; and payment to him in due course discharges the instrument."

The holder of a note is presumed to be the owner thereof. (49 N.E. 1101.)

What Constitutes Holder in Due Course.—Section 52. "A holder in due course is a holder who has taken the instrument under the following conditions:

1. That it is complete and regular upon its face;
2. That he became the holder of it before it was overdue, and without notice that it had been previously dishonored, if such was the fact;
3. That he took it in good faith and for value;
4. That at the time it was negotiated to him, he had no notice of any infirmity in the instrument or defect in the title of the person negotiating it."

A holder for value of an instrument as defined in Section 52 is to be distinguished from a holder in due course as defined in this section. A holder in due course is one who has no notice of any defect in the title of the person negotiating the instrument. (143 N.Y.S. 763; 173 Va. 168.) Under this section a purchaser who takes a negotiable instrument with unfilled blanks is put on inquiry and may not become a holder in due course. (25 N.Y.S. 2d 157; 220 Mass. 445.) Ordinarily a payee of a negotiable instrument will not be in the position of a holder in due course. (173 N.Y. App. Div. 821; 192 N.C. 330.)

A bank discounting paper and merely placing the amount to the credit of the customer does not become a holder in due course. (180 N.Y. 346.) But if the sum so credited is drawn on, the bank becomes a holder in due course to that extent.

Person Not Deemed Holder in Due Course.—Section 53. "Where an instrument payable on demand is negotiated an unreasonable length of time after its issue, the holder is not deemed a holder in due course."

NOTICE BEFORE FULL AMOUNT IS PAID.—Section 54. "Where the transferee receives notice of any infirmity in the instrument or defect in the title of the person negotiating the same, before he has paid the full amount agreed to be paid therefor, he will be deemed a holder in due course only to the extent of the amount theretofore paid by him."

WHEN TITLE IS DEFECTIVE.—Section 55. "The title of a person who negotiates an instrument is defective within the meaning of this Act when he obtained the instrument, or any signature thereto, by fraud, duress, or force and fear, or other unlawful means, or for an illegal consideration, or when he negotiates it in breach of faith, or under such circumstances as amounts to a fraud."

A Federal Reserve bank which accepted for collection a check which had been indorsed "For Deposit" by the payee, and subsequently by another in blank, was liable to the true owner for loss for "bad faith" in failing to inquire into the significance of the indorsement. (14 N.E. 2d 46.)

Notice of Defect.—Section 56. "To constitute notice of an infirmity in the instrument or defect in the title of the person negotiating the same, the person to whom it is negotiated must have had actual knowledge of the infirmity or defect, or knowledge of such facts that his action in taking the instrument amounted to bad faith." (See Section 95, N.Y. Negotiable Instruments Law, for a stricter section.) For actual notice see 102 U.S. 442; 148 N.Y. 652.

The transferee is not required to make an inquiry. (175 Minn. 287; 150 N.Y. 59.) A purchase at a discount, even though it is large, is not sufficient to deprive the holder of the rights of a holder in due course. If, however, the discount is very large and there are other factors, they may be considered together to determine if he became a holder in good faith. (156 N.Y. App. Div. 9.)

Stolen Instruments.—An incomplete instrument stolen before negotiation is not valid in the hands of any holder. But if a completed instrument is stolen either before or after delivery, and negotiated by a thief, it may be enforced by a holder in due course. (140 N.Y. App. Div. 265; 251 Mass. 296.)

Where stolen Victory notes were purchased from an authorized broker known to be such by the purchaser, this fact did not as a matter of law charge the purchaser with actual knowledge of any defect in the title. (277 Fed. 32.)

RIGHTS OF HOLDER IN DUE COURSE.—Section 57. "A holder in due course holds the instrument free from any defect of title of prior parties, and free from defences available to prior parties among themselves, and may enforce payment of the instrument for the full amount thereof against all parties liable thereon."

Mere suspicion or surmise is not sufficient to put a purchaser of commercial paper upon inquiry, but the facts and circumstances must show dishonesty or bad faith in refraining from making inquiry. (154 N.Y.S. 612.)

One who takes a negotiable instrument purporting to have been executed by an agent is bound to inquire as to the power of the agent. Third persons cannot rely upon the agent's mere assumption of authority. Where the agent transcends the limit of his authority and the person with whom he deals has notice of this sufficiently to put him on inquiry, he cannot charge the principal. (52 N.Y.S. 681.)

INSTRUMENTS ISSUED IN VIOLATION OF LAW.—An instrument given for an illegal consideration can nevertheless be enforced by a bona fide purchaser, unless the statute expressly declares the instrument to be void. A check or note given for a gambling debt in some states is absolutely void. Usury makes an ordinary instrument unenforceable even by a bona fide purchaser (91 S.E. 7; 223 N.Y. 401), except as in the case of New York where a bank forfeits the usurious interest but may recover the principal amount of the obligation. (New York Banking Law, Section 108.)

There is a tendency, however, on the part of the courts to uphold negotiable instruments in the hands of a bona fide holder since "the business of the country is done so largely by means of commercial paper that the interests of commerce require that a promissory note, fair on its face, should be as negotiable as a government bond. Every restriction upon the circulation of negotiable paper is an injury to the State, for it tends to derange trade and hinders the transaction of business." (Chemical National Bank v. Kellogg, 183 N.Y. 92.)

Usury, to have any effect on the instrument, must be present at the inception of the instrument. The mere fact that an instrument is subsequently discounted by remote parties does not constitute usury. "We are of the opinion that a purchaser of a negotiable security before maturity, in a case where he is not personally chargeable with fraud, is entitled to recover its full amount against its maker, though he may have paid less than par value." (Cromwell v. County of Sac., 96 U.S. 51.)

WHEN A NEGOTIABLE INSTRUMENT IS SUBJECT TO ORIGINAL DEFENSES.—Section 58. "In the hands of any holder other than a holder in due course, a negotiable instrument is subject to the same defenses as if it were non-negotiable. But a holder who derives his title through a holder in due course and who is not himself a party to any fraud or illegality affecting the instrument, has all the rights of such former holder in respect of all parties prior to the latter."

A transferee of a negotiable instrument who is not a holder in due course and who did not acquire the instrument from one who is takes a title which is subject to the equities between the original parties. (182 La. 649; 2 N.Y. App. Div. 240.) Because a past due note has passed through innocent hands before maturity and is thus free from equitable defenses, it is of no consequence that one who acquires it after its maturity may have had notice of an original infirmity. (150 Pac. 571.)

A note in the possession of the estate of a decedent, to whom the original note of which this note was a renewal was given, was held subject to any infirmity to which the original note would have been subject had the decedent lived, even though the renewal note was payable to the estate. (9 N.Y.S. 2d 350.)

HOLDER IN DUE COURSE.—Section 59. "Every holder is deemed prima facie to be a holder in due course; but when it is shown that the title of any person who has negotiated the instrument was defective, the burden is on the holder to prove that he or some person under whom he claims, acquired the title as holder in due course. But the last mentioned rule does not apply in favor of a party who became bound on the instrument prior to the acquisition of such defective title." Upon proof that the consideration for a note was a marginal gambling transaction, the burden is on the indorsee to see that he is a holder in due course. (187 Fed. 214.)

LIABILITY IN CONNECTION WITH NEGOTIABLE INSTRUMENTS.—Liability attaches to persons concerned as makers, drawers, acceptors, indorsers, or otherwise handling negotiable instruments.

Liability of Maker.—Section 60. "The maker of a negotiable instrument by making it, engages that he will pay it according to its tenor; and admits the existence of the payee and his then capacity to indorse."

The maker of a note is jointly liable on the note with the co-maker. (19 N.Y.S. 2d 457.) The maker is primarily liable even though he signs only for accommodation. (81 Ohio State 348.) Where a note is given for a bona fide consideration, the maker is estopped from setting up the defense as against the person to whom it is delivered and from whom the consideration passed, that it was payable to a fictitious payee. (9 N.Y. App. Div. 103; 217 N.W. 47.)

Liability of Drawer.—Section 61. "The drawer by drawing the instrument, admits the existence of the payee and his then capacity to indorse and engages that on due presentment the instrument will be accepted or paid, or both, according to its tenor, and that if it be dishonored and the necessary proceedings on dishonor be duly taken, he will pay the amount thereof to the holder, or to any subsequent indorser who may be compelled to pay it. But the drawer may insert in the instrument an express stipulation negativing or limiting his own liability to the holder."

The distinction between checks and bills of exchange, as respects drawer's obligations, is founded upon mercantile custom and is destroyed by this section. (280 N.Y. 135.)

Liability of Acceptor.—Section 62. "The acceptor by accepting the instrument, engages that he wall pay it according to the tenor of his acceptance; and admits:

1. The existence of the drawer, the genuineness of his signature, and his capacity and authority to draw the instrument; and
2. The existence of the payee and his then capacity to indorse."

While the drawee of a bill is bound to know the signature of the drawer, he is not required to have any knowledge of the signature of the payee. If the drawee pays a draft on a forged indorsement and thereby is unable to charge the payment against the drawer, he is entitled to recover the money from the one to whom it was paid. (91 N.Y. 74.)

The acceptor is estopped from asserting the incapacity of the drawer where the instrument is drawn by an infant, married woman, or a cor-

poration without such power. (54 Penn. State 302.) The drawee cannot hold the drawer where the acceptance was for accommodation until the drawee has paid the instrument. (80 Virginia 369.)

When Person Deemed Indorser.—Section 63. "A person placing his signature upon an instrument, otherwise than as maker, drawer, or acceptor, is deemed to be an indorser, unless he clearly indicates by appropriate words his intention to be bound in some other capacity." This intention must be made clear and distinct by appropriate language. (170 Fed. 434.) The president of a corporation by writing his mere name upon the back of a note, without addition of any qualifying language, becomes an indorser within the meaning of this section. (163 N.Y.S. 97.)

Liability of Irregular Indorser.—Section 64. "Where a person not otherwise a party to an instrument, places thereon his signature in blank before delivery, he is liable as indorser in accordance with the following rules:

1. If the instrument is payable to the order of a third person, he is liable to the payee and to all subsequent parties.
2. If the instrument is payable to the order of the maker or drawer, or is payable to bearer, he is liable to all parties subsequent to the maker or drawer.
3. If he signs for the accommodation of the payee, he is liable to all parties subsequent to the payee."

By this section a prior rule that an irregular indorser was presumed to be a second indorser was changed. Such an indorser is now presumed to be liable in several different situations according to the language of this section. (192 N.Y. 499; 85 N.E. 682.) Unless successive accommodation indorsers of commercial paper specially agree that they are to be bound jointly and severally, they are not deemed co-sureties and are not entitled to contribution among themselves. (197 N.Y.S. 852.)

Warranties.—Section 65. "Every person negotiating an instrument by delivery or by a qualified indorsement warrants:

1. That the instrument is genuine and in all respects what it purports to be;
2. That he has good title to it;
3. That all prior parties had capacity to contract;
4. That he has no knowledge of any fact which would impair the validity of the instrument or render it valueless. But when the negotiation is by delivery only, the warranty extends in favor of no holder other than the immediate transferee. The provisions of subdivision 3 of this section do not apply to persons negotiating public or corporate securities, other than bills and notes."

A transferor of negotiable paper by assigning without endorsement warrants under this section only against his own knowledge of invalidity and not against the fact of invalidity. This is true whether the instrument be bearer paper or unindorsed order paper. (48 Fed. 2d 574.) It has long been the settled law, and has now been made law by statute, that every person negotiating a negotiable instrument by delivery, or by qualified indorsement, warrants that the instrument is genuine and in all respects what it purports to be. (70 Okl. 293; 66 N.Y. App. Div. 507.)

Although it is a rule that, upon the sale of a note, there is an implied warranty by the vendor of the genuineness of the instrument, no warranty will be implied if the contract of sale was made in such form as to exclude the warranty of genuineness, as when the vendor expressly declines to warrant the genuineness of the note. (60 N.Y. 528.)

The seller of a forged instrument is liable to the purchaser even though he acted in good faith. (232 S.W. 456.)

Liability of General Indorser.—Section 66. "Every indorser who indorses without qualification warrants to all subsequent holders in due course:

1. The matters and things mentioned in Subdivisions 1, 2 and 3 of the next preceding section; and
2. That the instrument is at the time of his indorsement valid and subsisting. And in addition, he engages that on due presentment, it shall be accepted or paid, or both, as the case may be, according to its tenor, and that if it be dishonored, and the necessary proceedings on dishonor be duly taken, he will pay the amount thereof to the holder, or to any subsequent indorser who may be compelled to pay it."

Thus the obligation of the indorser is that, if the maker fails to pay, he, the indorser, is obligated if the proper steps are taken. (109 N.E. 481; 163 Cal. 485.)

An indorser guarantees the genuineness of all prior indorsements. (223 N.W. 780; 281 N.Y. 162.) Likewise the indorser of a check under forged indorsements of payees warrants the genuineness of the indorsements of the payees. (286 N.Y.S. 859.) The fact is that each indorsement of a promissory note is a separate contract, standing apart from that of the maker or any other indorser. (75 N.E. 1103.)

Liability of Indorser Where Paper Is Negotiable by Delivery.—Section 67. "Where a person places his indorsement on an instrument negotiable by delivery, he incurs all the liabilities of an indorser."

Order in Which Indorsers Are Liable.—Section 68. "As respects one another, indorsers are liable prima facie in the order in which they indorse; but evidence is admissible to show that as between or among themselves, they have agreed otherwise. Joint payees or joint indorsees who indorse are deemed to indorse jointly and severally."

In the absence of an agreement between two accommodation indorsers that they shall be liable between themselves as co-sureties, they are liable in the order that their names appear. (9 N.E. 109.)

Liability of Agent or Broker.—Section 69. "Where a broker or other agent negotiates an instrument without indorsement, he incurs all the liabilities prescribed by Section 65 of this Act, unless he discloses the name of his principal and the fact he is acting only as agent."

Presentment, Maturity, Payment, Notice of Dishonor, Discharge

PRESENTMENT.—Section 70. "Presentment for payment is not necessary in order to charge the person primarily liable on the instrument; but if the instrument is, by its terms, payable at a special place and he is able and willing to pay it there at maturity and has funds

there available for that purpose, such ability and willingness are equivalent to a tender of payment upon his part. But except as herein otherwise provided, presentment for payment is necessary in order to charge the drawer and indorsers."

In essence, this means that presentment is necessary only to fix the liability of the parties who are secondarily liable. The maker or acceptor, being a primary obligor, remains liable even though the instrument is not presented for payment. The only effect that nonpresentment has on the primary parties is to stop the running of interest as against them. Indorsers and secondary parties may waive the necessity of presentment. (22 N.E. 371.)

In an action brought by the holder of a note where the fact of presentment was to be in issue, the burden of establishing the fact rests on the holder. (255 N.Y. App. Div. 540.)

Presentment Where Payable on Demand and Otherwise.—Section 71. "Where the instrument is not payable on demand, presentment must be made on the day it falls due. Where it is payable on demand, presentment must be made within a reasonable time after its issue, except that in a case of a bill of exchange, presentment for payment will be sufficient if made within a reasonable time after the last negotiation thereof."

The requirements of presentment and notice of dishonor are for the benefit of the indorser, and enable him to have prompt notice of default so that he may immediately take steps to provide for his own indemnity. (21 N.Y.S. 2d 245.) What is a reasonable time depends on the circumstances in each case. No definite rule has been laid down by the courts. The usage of trade seems to govern.

What Constitutes a Sufficient Presentment.—Section 72. "Presentment for payment to be sufficient, must be made:

1. By the holder, or by some person authorized to receive payment on his behalf;
2. At a reasonable hour on a business day;
3. At a proper place as herein defined;
4. To the person primarily liable on the instrument, or if he is absent or inaccessible, to any person found at the place where the presentment is made."

Place of Presentment.—Section 73. "Presentment for payment is made at the proper place:

1. Where a place of payment is specified in the instrument and it is there presented;
2. Where no place of payment is specified, but the address of the person to make payment is given in the instrument and it is there presented;
3. Where no place of payment is specified and no address is given and the instrument is presented at the usual place of business or residence of the person to make payment;
4. In any other case, if presented to the person to make payment, wherever he can be found, or if presented at his last known place of business or residence."

A demand by the holder of a demand note in a letter requiring the payment of the note at a named future time is not sufficient presentment. (57 N.E. 1118.)

Instrument Must Be Exhibited.—Section 74. "The instrument must be exhibited to the person from whom payment is demanded, and when it is paid, it must be delivered up to the party paying it."

Under this section, a valid presentment requires a personal demand with the note in readiness for exhibition and surrender if the debtor is willing to pay. (177 N.W. 987; 94 N.E. 656.) A mere informal talk with the maker of a note, not accompanied with a presentment, is not sufficient to dishonor the note. (152 Md. 81; 145 N.Y. App. Div. 669.)

Presentment Where Payable at Bank.—Section 75. "Where the instrument is payable at a bank, presentment for payment must be made during banking hours, unless the person to make payment has no funds there to meet it at any time during the day, in which case presentment at any hour before the bank is closed on that day is sufficient."

The presentment of a check through the Clearing House in New York City has been held to be a sufficient presentment. (109 N.E. 179.) Where a note is payable at a bank which is in the hands of a receiver, a presentation of the note would be proper at a reasonable hour on the business day. (110 N.Y. App. Div. 356.)

Presentment Where Principal Debtor Is Dead.—Section 76. "Where the person primarily liable on the instrument is dead and no place of payment is specified, presentment for payment must be made to his personal representative, if such there be, and if, with the exercise of reasonable diligence, he can be found."

The fact that a primary party is dead and no personal representative has been appointed may excuse a presentment of the note, but does not relieve the holder of the duty to give notice of dishonor to indorsers. (107 N.Y. App. Div. 144.)

Presentment to Persons Liable as Partners.—Section 77. "Where the persons primarily liable on the instrument are liable as partners, and no place of payment is specified, presentment for payment may be made to any one of them, even though there has been a dissolution of the firm."

Presentment to Joint Debtors.—Section 78. "Where there are several persons not partners primarily liable on the instrument, and no place of payment is specified, presentment must be made to all."

Under this section a demand on each of several joint makers must be made in order to charge an indorser. (111 Neb. 76; 130 N.Y. 412.)

When Presentment Is Not Required.—Section 79. "Presentment for payment is not required in order to charge the drawer where he has no right to expect or require that the drawee or acceptor will pay the instrument."

Where a bank on which a check was drawn suspended payment within the time required for presentment, presentment and notice of dishonor were not essential. (33 N.Y.S. 62.)

Section 80. "Presentment for payment is not required in order to charge the indorser where the instrument was made or accepted for his accommodation, and he has no reason to expect that the instrument will be paid if presented."

When Delay in Presentment Is Excused.—Section 81. "Delay in making presentment for payment is excused when the delay is caused by circumstances beyond the control of the holder and not imputable to his default, misconduct or negligence. When the cause of delay ceases to operate, presentment must be made with reasonable diligence."

A delay of one day in presenting a draft against a letter of credit, due to unusual and unexpected delays in the mail, is excusable. (273 U.S. 720.)

When Presentment May Be Dispensed With.—Section 82. "Presentment for payment is dispensed with:

1. Where, after the exercise of reasonable diligence, presentment as required by this Act cannot be made;
2. Where the drawee is a fictitious person;
3. By waiver of presentment expressed or implied."

Waiver of presentment and notice thereof may be either verbal or in writing, and it may result from implication, usage or any understanding between the parties sufficient to show that a waiver is intended, but it must be clearly established and will not be inferred from doubtful acts or language. (18 N.E. 2d 862.) The insolvency of a maker or acceptor does not dispense with the necessity for presentment. (68 N.W. 677; 27 N.E. 251.)

When Instrument Is Dishonored.—Section 83. "The instrument is dishonored by non-payment when:

1. It is duly presented for payment and payment is refused or cannot be obtained; or
2. Presentment is excused and the instrument is overdue and unpaid."

Liability of Person Secondarily Liable.—Section 84. "Subject to the provisions of this Act, when the instrument is dishonored by non-payment, an immediate right of recourse to all parties secondarily liable thereon, accrues to the holder."

TIME OF MATURITY.—Section 85. "Every negotiable instrument is payable at the time fixed therein without grace. When the day of maturity falls upon Sunday or a holiday, the instrument is payable on the next succeeding business day. Instruments falling due (or becoming payable) on Saturday, are to be presented for payment on the next succeeding business day, except that instruments payable on demand may, at the option of the holder, be presented for payment before twelve o'clock noon on Saturday when that entire day is not a holiday."

Time; How Computed.—Section 86. "Where the instrument is payable at a fixed period after date, after sight, or after the happening of a specified event, the time of payment is determined by excluding the day from which the time is to begin to run, and by including the date of payment."

Where Instrument Is Payable at Bank.—Section 87. "Where the instrument is made payable at a bank, it is equivalent to an order to the bank to pay the same for the account of the principal debtor thereon."

WHAT CONSTITUTES PAYMENT IN DUE COURSE.—Section 88. "Payment is made in due course when it is made at or after the maturity of the instrument to the holder thereof in good faith and without notice that his title is defective."

Possession of the instrument itself is prima facie authority to demand payment. The maker or drawer has a duty to demand the production of the instrument before paying it. (123 Wisc. 193.)

NOTICE OF DISHONOR.—Section 89. "Except as is herein otherwise provided, when a negotiable instrument has been dishonored by non-acceptance or non-payment, notice of dishonor must be given to the drawer and to each indorser, and any drawer or indorser to whom such notice is not given is discharged."

Such notice of dishonor is shown in the notice of protest, Fig. 11.

The object of the requirement of this notice of dishonor is to put the indorser in possession of the material facts on which his own liability is founded, so that he may take necessary measures for his own security against those who are liable to him. (22 N.E. 371.) Except when waived or excused, notice of dishonor is an essential element to hold the indorser of a negotiable instrument. (22 N.E. 371.) An accommodation indorser, to be held, must be given notice of dishonor like any other indorser. (279 N.Y. 775.) Where a note is given to a bank for collection and it is dishonored, it is the duty of the bank to give notice of dishonor to its customer. (148 N.C. 362.)

The foregoing applies only to parties secondarily liable. A pure guarantor does not come under the rule requiring such notice. (2 N.Y. 225.)

By Whom Notice Given.—Section 90. "The notice may be given by or on behalf of the holder, or by or on behalf of any party to the instrument who might be compelled to pay it to the holder, and who, upon taking it up, would have a right to reimbursement from the party to whom the notice is given."

To John Doe:

Please take notice that a note made by Richard Roe for the sum of One hundred dollars, dated June 1st, 1946, payable thirty days after date to Ben Boe or his order and indorsed by you, has been presented by me, at the request of the holders thereof, to Richard Roe at No. 1 Fifth Avenue, Borough of Manhattan, City of New York, and that payment being duly demanded, was refused, whereupon, by direction of such holders, the same has been protested by me, and payment thereof is hereby requested of you.

July 1st, 1946.
(Seal)

Henry Hoe
Notary Public New York County No. 1
Register No. 1–H–1
Commission expires March 30, 1947.

FIG. 11. Notice of Protest

Mere knowledge of dishonor is not equivalent to notice thereof. The notice must come from one entitled to look to the party for payment and must inform him that the note has been duly presented for payment, that it has been dishonored, and that the holder looks to him for payment. (279 N.Y. 775; 18 N.E. 2d 862.) Although a maker cannot on his own behalf give a notice of dishonor, he may do it as an agent on behalf of the holder. (105 N.Y. App. Div. 433.) The notice must be given by either the holder or a duly constituted agent. (16 N.Y. 235.)

Notice Given by Agent.—Section 91. "Notice of dishonor may be given by an agent either in his own name or in the name of any party entitled to give notice, whether that party be his principal or not."

A bank which is agent of the owner of a bill to collect it is considered the real holder and may give proper notice. (156 S.W. 856; 34 N.Y. 128.) A notary public who is an agent for the owner may give the notice even though acting in his official capacity. (16 N.Y. 235.)

Effective Notice on Behalf of Holder.—Section 92. "Where notice is given by or on behalf of the holder, it enures for the benefit of all subsequent holders and all prior parties who have a right of recourse against the party to whom it is given." If an indorser gives due notice to a prior indorser, the latter is bound. (48 N.Y. App. Div. 188.)

Failure to give notice releases the parties to whom notice is not given. (See section 89 above.)

Section 93. "Where notice is given by or on behalf of a party entitled to give notice, it enures for the benefit of the holder and all parties subsequent to the party to whom notice is given."

When Agent May Give Notice.—Section 94. "Where the instrument has been dishonored in the hands of an agent, he may either himself give notice to the parties liable thereon, or he may give notice to his principal. If he gives notice to his principal, he must do so within the same time as if he were the holder, and the principal, upon the receipt of such notice, has himself the same time for giving notice as if the agent had been an independent holder."

Undue delay by an agent in giving notice to his principal discharges prior indorsers. (90 Tenn. 90.) A mailing of notice of dishonor to an address designated by the indorser on the note is sufficient, even though notice never reaches the indorser. (1 N.Y.S. 2d 438.) A bank receiving an instrument for collection fulfills its duty to the depositor by giving prior notice of dishonor in time to enable its customer to give notice to prior indorsers. (159 N.Y. App. Div. 461.)

When Notice Sufficient.—Section 95. "A written notice need not be signed, and an insufficient written notice may be supplemented and validated by verbal communication. A misdescription of the instrument does not vitiate the notice unless the party to whom the notice is given is in fact misled thereby."

Form of Notice.—Section 96. "The notice may be in writing or merely oral, and may be given in any terms which sufficiently identify the instrument and indicate that it has been dishonored by non-acceptance or non-payment. It may in all cases be given by delivering it personally or through the mails."

This section is merely a restatement of the common law, which allowed notice to be either written or oral. (1 N.Y. 413.)

Notice given by telephone on the following morning by a bank which paid a note by mistake was sufficient notice of protest within this section. (234 N.Y. App. Div. 885.) Mere knowledge of dishonor is not equivalent to notice of dishonor. (21 N.Y.S. 2d 245.)

To Whom Notice May Be Given.—Section 97. "Notice of dishonor may be given either to the party himself or to his agent in that behalf."

If the indorser is a corporation, such notice should be given to an officer or managing agent. (143 S.W. 597.)

Notice Where Party Is Dead.—Section 98. "When any party is dead, and his death is known to the party giving notice, the notice must be given to a personal representative, if there be one, and if with reasonable diligence he can be found. If there be no personal representative, notice may be sent to the last residence or last place of business of the deceased."

Notice to Partners.—Section 99. "Where the parties to be notified are partners, notice to any one partner is notice to the firm, even though there has been a dissolution."

Notice to Persons Jointly Liable.—Section 100. "Notice to joint parties who are not partners must be given to each of them unless one of them has authority to receive such notice for the others."

Notice to Bankrupt.—Section 101. "Where a party has been adjudged a bankrupt or an insolvent, or has made an assignment for the benefit of creditors, notice may be given either to the party himself or to his trustee or assignee."

Time Within Which Notice Must Be Given.—Section 102. "Notice may be given as soon as the instrument is dishonored; and unless delay is excused as hereinafter provided, must be given within the times fixed by this Act."

Where Parties Reside in Same Place.—Section 103. "Where the person giving and the person to receive notice reside in the same place, notice must be given within the following times:

1. If given at the place of business of the person to receive notice, it must be given before the close of business hours on the day following;
2. If given at his residence, it must be given before the usual hours of rest on the day following;
3. If sent by mail, it must be deposited in the Post Office in time to reach him in the usual course on the day following."

Where Parties Reside in Different Places.—Section 104. "Where the person giving and the person to receive notice reside in different places, the notice must be given within the following times:

1. If sent by mail, it must be deposited in the Post Office in time to go by mail the day following the day of dishonor, or if there be no mail, at a convenient hour on that day, by the next mail thereafter.
2. If given otherwise than through the Post Office, then within the time that notice would have been received in due course of mail, if

it had been deposited in the Post Office within the time specified in the last Subdivision."

Notice is not good where the delay of delivery was due to insufficient postage. (139 Wisc. 126.)

When Sender Is Deemed to Have Given Good Notice.—Section 105. "Where notice of dishonor is duly addressed and deposited in the Post Office, the sender is deemed to have given due notice, notwithstanding any miscarriage in the mails."

Deposit in Post Office; What Constitutes.—Section 106. "Notice is deemed to have been deposited in the Post Office when deposited in any Branch Office or in any letter box under the control of the Post Office Department."

A notice of dishonor is sufficiently mailed when it is deposited in a letter chute under the control of the Post Office Department. (121 N.Y.S. 344.)

Notice to Subsequent Party; Time of Notice.—Section 107. "Where a party receives notice of dishonor, he has, after the receipt of such notice, the same time for giving notice to antecedent parties that the holder has after the dishonor."

Where the holder of a check indorses it and deposits it in the bank for collection, and two days thereafter, immediately after receiving notice of dishonor from the bank, he notifies a prior indorser of the dishonor, the notice is sufficient. (124 N.Y. App. Div. 531.)

Where Notice Must Be Sent.—Section 108. "Where a party has added an address to his signature, notice of dishonor must be sent to that address; but if he has not given such address, then the notice must be sent as follows:

1. Either to the Post Office nearest to his place of residence, or to the Post Office where he is accustomed to receive his letters; or
2. If he live in one place, and have his place of business in another, notice may be sent to either place; or
3. If he is sojourning in another place, notice may be sent to the place where he is sojourning.

But where the notice is actually received by the party within the time specified in this act, it will be sufficient, though not sent in accordance with the requirements of this section.

Waiver of Notice.—Section 109. "Notice of dishonor may be waived, either before the time of giving notice has arrived or after the omission to give due notice, and the waiver may be expressed or implied." (See Fig. 12.)

I, John Doe, do hereby, for value received, waive demand, notice of demand, and nonpayment, protest, and notice of protest of the within note. Dated, June 1st, 19—.

John Doe

FIG. 12. Waiver of Demand and Notice by Indorser

The liability of an indorser generally depends upon the implied conditions that the instrument shall be duly presented at its maturity and that notice of dishonor shall be transmitted to the indorser. But these conditions are for the benefit of the indorser and may be waived by him, either verbally, in writing or as a result of implication and usage, or from any understanding between the parties which is sufficient to prove the waiver. (22 N.E. 371.)

Where accommodation indorsers on a note a few days before maturity indorse a renewal note, they are deemed to have waived notice of dishonor on the original note. (25 N.Y. App. Div. 414.) Mere knowledge of dishonor is not equivalent to notice thereof. (18 N.E. 2d 862.)

Who Is Affected by Waiver.—Section 110. "Where the waiver is embodied in the instrument itself, it is binding upon all parties; but where it is written above the signature of an indorser, it binds him only."

Waiver of Protest.—Section 111. "A waiver of protest, whether in the case of a foreign bill of exchange or other negotiable instrument, is deemed to be a waiver not only of a formal protest, but also of presentment and notice of dishonor."

When Notice Is Dispensed With.—Section 112. "Notice of dishonor is dispensed with when, after the exercise of reasonable diligence, it cannot be given to or does not reach the parties sought to be charged."

It has been held that where the indorser had no place of residence which the reasonable diligence of the holder could enable him to discover, the law would dispense with giving regular notice. (7 N.Y. 266.) The mere examination of a City Directory is not due diligence in ascertaining the residence of an indorser and does not excuse the failure to give notice. (137 N.Y. 379.) Where a holder does not know or cannot find the address of the maker, he is under a duty to inquire for it of the other parties to the instrument. (48 N.Y. App. Div. 188.)

Delay in Giving Notice.—Section 113. "Delay in giving notice of dishonor is excused when the delay is caused by circumstances beyond the control of the holder and not imputable to his default, misconduct or negligence. When the cause of delay ceases to operate, notice must be given with reasonable diligence."

When Notice Need Not Be Given Drawer.—Section 114. "Notice of dishonor is not required to be given to the drawer in either of the following cases:

1. Where the drawer and drawee are the same person;
2. Where the drawee is a fictitious person or a person not having capacity to contract;
3. Where the drawer is the person to whom the instrument is presented for payment;
4. Where the drawer has no right to expect or require that the drawee or acceptor will honor the instrument;
5. Where the drawer has countermanded payment."

If the drawer of a check has no funds in the hands of the drawee wherewith to pay the check, presentment and notice of dishonor are not essential in order to charge the drawer. (285 S.W. 307.) Under subdivision 4, notice of dishonor was not required to be given to the maker

where the payee bank was closed by order of the governor declaring a bank holiday and never reopened. (242 N.Y. App. Div. 17.)

Notice of Nonpayment Where Acceptance Is Refused.—Section 116 "Where due notice of dishonor by non-acceptance has been given, notice of a subsequent dishonor by non-payment is not necessary, unless in the meantime the instrument has been accepted."

Effect of Omission to Give Notice of Nonacceptance.—Section 117. "An omission to give notice of dishonor by non-acceptance does not prejudice the rights of a holder in due course subsequent to the omission."

Protest.—Section 118. "Where any negotiable instrument has been dishonored, it may be protested for non-acceptance or non-payment, as the case may be; but protest is not required except in the case of foreign bills of exchange."

Formal protest by a notary public is not essential to hold the indorser of a promissory note. (138 N.Y. App. Div. 339.) Although protest is not legally required in the case of nonpayment of inland bills of exchange, it is desirable to have a certificate of a notary setting forth presentation and demand for payment where it may become necessary to bring legal action. Without such certificate, it is sometimes difficult to prove these facts in court. (240 Pa. State 328.) A certificate of service of notice of protest is shown in Fig. 13.

United States of America,
State of New York, } ss:
County of New York,

I, John Doe, a notary public of the State of New York, duly commissioned and sworn, do hereby certify, that on the 1st day of June, 1946, due notice of the protest of the before mentioned bill was served on Richard Roe personally, and upon Ben Boe, by putting the same into the post-office directed to him at No. 1 Fifth Avenue, New York City, which place was the reputed residence of the person to whom the notice was directed, and the post-office address nearest thereto, and that said notice was mailed at Hudson River Station Post-office, New York City, in a sealed envelope with postage prepaid.

John Doe
Notary Public, New York County No. 1
(Seal) Register No. 1–D–1
Commission expires March 30, 1947.

FIG. 13. Certificate of Service of Notice of Protest

DISCHARGE.—Section 119. "A negotiable instrument is discharged:

1. By payment in due course by or on behalf of the principal debtor;
2. By payment in due course by the party accommodated, where the instrument is made or accepted for accommodation;
3. By the intentional cancellation thereof by the holder;

4. By any other act which will discharge a simple contract for the payment of money;
5. When the principal debtor becomes the holder of the instrument at or after maturity in his own right."

The words in subdivision 5 "in his own right" merely exclude such a case as that of a maker acquiring the instrument in a representative capacity. (94 N.Y. App. Div. 474.)

Where the indorser of a note pays a part thereof to the holder and the payment is not made as agent for the maker, but simply in discharge of the indorser's liability, the payment does not enure to the benefit of the maker. The holder may then maintain an action against the maker to recover the entire amount of the note. (33 N.E. 557.)

Under this section the payment of an accommodation note by the party accommodated discharges the instrument. (101 N.Y.S. 101.) One of two co-makers, who signed for the accommodation of the other, can pay the instrument and recover on it against his co-maker who received the consideration. (281 Fed. 715.)

When Persons Secondarily Liable Are Discharged.—Section 120. "A person secondarily liable on the instrument is discharged:

1. By any act which discharges the instrument;
2. By the intentional cancellation of his signature by the holder;
3. By the discharge of a prior party;
4. By a valid tender of payment made by a prior party;
5. By a release of the principal debtor, unless the holder's right of recourse against the parties secondarily liable is expressly reserved;
6. By any agreement binding upon the holder to extend the time of payment or to postpone the holder's right to enforce the instrument, unless made with the assent of the party secondarily liable, or unless the right of recourse against such party is expressly reserved."

Any act which discharges a prior indorser discharges all subsequent indorsers for the reason, that on making payment, each indorser is entitled to have recourse to all indorsers preceding him. (174 N.Y. 222.) Even prior to the adoption of this section, it was well settled that a valid agreement to extend the time of payment between the holder of a note and the principal debtor, without the knowledge or consent of an indorser, operated to release the latter. (71 N.E. 1.) The giving of any security by the maker or prior indorser for the payment is not payment, nor does it discharge subsequent indorsers. (176 Pa. State 513.) An extension of time made after the maturity of a note will discharge the indorser. (143 N.Y.S. 1017.)

Right of Party Who Discharges Instrument.—Section 121. "Where the instrument is paid by a party secondarily liable thereon, it is not discharged; but the party so paying it is remitted to his former rights as regards all prior parties, and he may strike out his own and all subsequent indorsements, and again negotiate the instrument, except:

1. Where it is payable to the order of a third person, and has been paid by the drawer; and
2. Where it was made or accepted for accommodation and has been paid by the party accommodated."

Renunciation by Holder.—Section 122. "The holder may expressly renounce his rights against any party to the instrument, before, at or

after its maturity. An absolute and unconditional renunciation of his rights against the principal debtor, made at or after the maturity of the instrument, discharges the instrument. But a renunciation does not affect the rights of a holder in due course without notice. A renunciation must be in writing, unless the instrument is delivered up to the person primarily liable thereon."

CANCELLATION; BURDEN OF PROOF.—Section 123. "A cancellation made unintentionally, or under a mistake, or without the authority of the holder, is inoperative; but where an instrument or any signature thereon appears to have been cancelled, the burden of proof lies on the party who alleges that the cancellation was made unintentionally or under a mistake or without authority."

Under this section, a note may be discharged by written consent without consideration, and by oral consent with consideration. (189 N.E. 776.) Whether notes physically mutilated were intended to be cancelled is a question of fact where there is conflicting evidence on the subject. (182 N.Y.S. 902.)

ALTERATION OF INSTRUMENT.—Section 124. "Where a negotiable instrument is materially altered without the assent of all parties liable thereon, it is voided, except as against a party who has himself made, authorized or assented to the alteration and subsequent indorsers. But when an instrument has been materially altered and is in the hands of a holder in due course, not a party to the alteration, he may enforce payment thereof according to its original tenor.

Prior to the enactment of this section, a material alteration had the effect of voiding the instrument, even in the hands of a holder in due course. But under this section a holder in due course is permitted to recover according to the instrument's original tenor. (87 N.E. 779.)

Where the maker of an instrument leaves a blank space which enables a forger to raise the amount thereof, the liability of the maker or an indorser is not affected by alleged negligence in signing or indorsing the carelessly drawn instrument, but a holder in due course can only enforce it according to its original tenor. (87 N.E. 779.) Where the mere inspection of a check discloses that there has been an alteration, a transferee thereof cannot be a holder in due course. (131 Tenn. 42; 98 N.Y.S. 667.) Adding the words "with interest" is a material alteration. (220 Mass. 247.) Changing an order instrument to a bearer instrument is a material alteration. (151 N.W. 100.) An alteration of the place of payment is a material alteration. (235 N.Y. App. Div. 704.)

Material Alteration.—Section 125. "Any alteration which changes:

1. The date;
2. The sum payable, either for principal or interest;
3. The time or place of payment;
4. The principal or relations of the parties;
5. The medium or currency in which payment is to be made; or which adds a place of payment where no place of payment is specified, or any other change or addition which alters the effect of the instrument in any respect is a material alteration."

Bills of Exchange

NATURE OF BILLS OF EXCHANGE.—Section 126. "A bill of exchange is an unconditional order in writing addressed by one person to another, signed by the person giving it, requiring the person to whom it is addressed to pay on demand or at a fixed or determinable future time a sum certain in money to order or to bearer."

Bill Not an Assignment of Funds in the Hands of Drawee.—Section 127. "A bill of itself does not operate as an assignment of the funds in the hands of the drawee available for the payment thereof, and the drawee is not liable on the bill unless and until he accepts the same."

Bill Addressed to More than One Drawee.—Section 128. "A bill may be addressed to two or more drawees jointly, whether they are partners or not; but not to two or more drawees in the alternative or in succession."

Inland and Foreign Bills of Exchange.—Section 129. "An inland bill of exchange is a bill which is, or on its face purports to be, both drawn and payable within the State. Any other bill is a foreign bill. Unless the contrary appears on the face of the bill, the holder may treat it as an inland bill."

A bill of exchange drawn in a foreign state upon a party in this state has long been considered a foreign bill. (49 N.Y. 269.)

A foreign check is a foreign bill of exchange, not an inland bill. (159 N. Y. App. Div. 389.)

When Bill May Be Treated as Promissory Note.—Section 130. "Where in a bill, the drawer and drawee are the same person, or where the drawee is a fictitious person, or a person not having capacity to contract, the holder may treat the instrument at his option, either as a bill of exchange or a promissory note."

Referee in Case of Need.—Section 131. "The drawer of a bill and any indorser may insert thereon the name of a person to whom the holder may resort in case of need, that is to say, in case the bill is dishonored by non-acceptance or non-payment. Such person is called the Referee in case of need. It is in the option of the holder to resort to the Referee in case of need or not, as he may see fit."

ACCEPTANCE OF BILL OF EXCHANGE.—Section 132. "The acceptance of a bill is the signification by the drawee of his assent to the order of the drawer. The acceptance must be in writing and signed by the drawee. It must not express that the drawee will perform his promise by any other means than the payment of money."

Upon acceptance, a bill of exchange becomes in effect a promissory note, the acceptor standing in the place of the maker and becoming primarily liable, and the maker standing in the place of a first indorser. (237 N.Y. App. Div. 723.)

The usual method of accepting a bill of exchange is to write across the face of the bill "Accepted," subscribed by the drawee's signature. (See Fig. 14.)

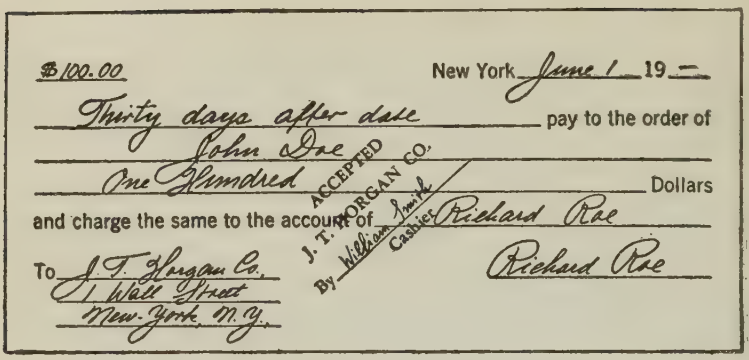


FIG. 14. Accepted Bill of Exchange

Holder Entitled to Acceptance on Face of Bill.—Section 133. "The holder of a bill presenting the same for acceptance may require that the acceptance be written on the bill, and if such request is refused, may treat the bill as dishonored."

Acceptance by Separate Instrument.—Section 134. "Where an acceptance is written on a paper other than the bill itself, it does not bind the acceptor, except in favor of a person to whom it is shown and who, on the faith thereof, receives the bill for value."

Promise to Accept.—Section 135. "An unconditional promise in writing to accept a bill before it is drawn is deemed an actual acceptance in favor of every person who, upon the faith thereof, receives the bill for value."

Special promissory words are not necessary to constitute a sufficient promise within this section, where the language employed imports a legal obligation. (3 N.E. 182.)

Time Allowed Drawee to Accept.—Section 136. "The drawee is allowed twenty-four hours after presentment in which to decide whether or not he will accept the bill; but the acceptance, if given, dates as of the day of presentation."

Liability of Drawee Retaining or Destroying Bill.—Section 137. "Where a drawee to whom a bill is delivered for acceptance destroys the same, or refuses within twenty-four hours after such delivery, or within such other period as the holder may allow, to return the bill accepted or non-accepted to the holder, he will be deemed to have accepted the same."

A check is regarded as a bill of exchange payable on demand and is within the doctrine that the drawee will be deemed to have accepted when he refuses to return it within 24 hours after its delivery for acceptance. (91 N.Y.S. 276.)

Acceptance of Incomplete Bill.—Section 138. "A bill may be accepted before it has been signed by the drawer, or while otherwise in-

complete, or when it is overdue, or after it has been dishonored by a previous refusal to accept, or by the non-payment. But when a bill payable after sight is dishonored by non-acceptance and the drawee subsequently accepts it, the holder, in the absence of any different agreement, is entitled to have the bill accepted as of the date of first presentment."

Kinds of Acceptances.—Section 139. "An acceptance is either general or qualified. A general acceptance assents without qualification to the order of the drawer. A qualified acceptance in express terms varies the effect of the bill as drawn."

What Constitutes a General Acceptance.—Section 140. "An acceptance to pay at a particular place is a general acceptance unless it expressly states that the bill is to be paid there only and not elsewhere."

Qualified Acceptance.—Section 141. "An acceptance is qualified which is:

1. Conditional, that is to say, which makes payment by the acceptor dependent on the fulfillment of a condition therein stated;
2. Partial, that is to say, an acceptance to pay part only of the amount for which the bill is drawn;
3. Local, that is to say, an acceptance to pay only at a particular place;
4. Qualified as to time;
5. The acceptance of some one or more of the drawees but not of all."

Rights of Parties as to Qualified Acceptance.—Section 142. "The holder may refuse to take a qualified acceptance, and if he does not obtain an unqualified acceptance, he may treat the bill as dishonored by non-acceptance. Where a qualified acceptance is taken, the drawer and indorsers are discharged from liability on the bill, unless they have expressly or impliedly authorized the holder to take a qualified acceptance, or subsequently assented thereto. When the drawer or an indorser receives notice of a qualified acceptance, he must within a reasonable time express his dissent to the holder, or he will be deemed to have assented thereto."

A bank acting as collecting agent has no authority to receive anything else than an unqualified acceptance. (9 N.Y. 582.)

PRESENTMENT FOR ACCEPTANCE.—Section 143. "Presentment for acceptance must be made:

1. Where the bill is payable after sight or in any other case where presentment for acceptance is necessary in order to fix the maturity of the instrument; or
2. Where the bill expressly stipulates that it shall be presented for acceptance; or
3. Where a bill is drawn payable elsewhere than at the residence or place of business of the drawee.

In no other case is presentment for acceptance necessary in order to render any party to the bill liable."

It is the duty of a bank or individual receiving a bill for collection to use due diligence in presenting it. Failure to do so or failure to give notice makes him liable for any loss which the holder may sustain. (9 N.Y. 582.)

When Failure to Present Releases Drawer and Indorser.—Section 144. "Except as herein otherwise provided, the holder of a bill which is required by the next preceding Section to be presented for acceptance must either present it for acceptance or negotiate it within a reasonable time. If he fails to do so, the drawer and all indorsers are discharged."

Requirements Covering Presentment.—Section 145. "Presentment for acceptance must be made by or on behalf of the holder at a reasonable hour, on a business day, and before the bill is overdue, to the drawee or some person authorized to accept or refuse acceptance on his behalf; and

1. Where a bill is addressed to two or more drawees who are not partners, presentment must be made to them all, unless one has authority to accept or refuse acceptance for all, in which case presentment may be made to him only;
2. Where the drawee is dead, presentment may be made to his personal representative;
3. Where the drawee has been adjudged a bankrupt or an insolvent, or has made an assignment for the benefit of creditors, presentment may be made to him or to his trustee or assignee."

When Presentment May Be Made.—Section 146. "A bill may be presented for acceptance on any day on which negotiable instruments may be presented for payment under the provisions of Sections Seventy-two and Eighty-five of this Act. When Saturday is not otherwise a holiday, presentment for acceptance may be made before twelve o'clock noon on that day."

When Time for Presentment Is Insufficient.—Section 147. "Where the holder of a bill drawn payable elsewhere than at the place of business or the residence of the drawee has not time with the exercise of reasonable diligence to present the bill for acceptance before presenting it for payment on the day that it falls due, the delay caused by presenting the bill for acceptance before presenting it for payment is excused and does not discharge the drawers and indorsers."

Where Presentment Is Excused.—Section 148. "Presentment for acceptance is excused and a bill may be treated as dishonored by non-acceptance in the following cases:

1. Where the drawee is dead or has absconded, or is a fictitious person or a person not having capacity to contract by bill;
2. Where after the exercise of reasonable diligence, presentment cannot be made;
3. Where, although presentment has been irregular, acceptance has been refused on some other ground."

When Dishonored by Nonacceptance.—Section 149. "A bill is dishonored by nonacceptance:

1. When it is duly presented for acceptance, and such an acceptance as is prescribed by this Act is refused or cannot be obtained; or
2. When presentment for acceptance is excused and the bill is not accepted."

Duty of Holder Where Bill Is Not Accepted.—Section 150. "Where a bill is duly presented for acceptance and is not accepted within the prescribed time, the person presenting it must treat the bill as dis-

honored by non-acceptance or he loses the right of recourse against the drawer and indorsers."

Rights of Holder.—Section 151. "When a bill is dishonored by non-acceptance, an immediate right of recourse against the drawers and indorsers accrues to the holder, and no presentment for payment is necessary."

PROTEST.—Section 152. "Where a foreign bill appearing on its face to be such is dishonored by non-acceptance, it must be duly protested for non-acceptance, and where such a bill which has not previously been dishonored by non-acceptance is dishonored by non-payment, it must be duly protested for non-payment. If it is not so protested, the drawer and indorsers are discharged. Where a bill does not appear on its face to be a foreign bill, protest thereof in case of dishonor is unnecessary."

Protest has long been required to hold the indorser on a foreign bill of exchange (49 N.Y. 269); but protest on a promissory note is not required to be made by a notary public. All that is required is a demand for payment and due notice of dishonor. (7 N.Y. 266.)

Section 153. "The protest must be annexed to the bill, or must contain a copy thereof, and must be under the hand and seal of the Notary making it, and must specify:

1. The time and place of presentment;
2. The fact that presentment was made and the manner thereof;
3. The cause or reason for protesting the bill;
4. The demand made and the answer given, if any, or the fact that the drawee or acceptor could not be found."

"In many states, statutes have made the certificate of the notary prima facie evidence of the facts of presentment, demand, non-payment and notice of dishonor. Therefore, while protest is not required in cases of promissory notes and inland bills, it is usual to protest these instruments also, when dishonored, since the notary's certificate of protest is the most convenient and certain mode of proving the facts." (Brannon's Negotiable Instruments Law, 5th Ed.)

By Whom Made.—Section 154. "Protest may be made by:

1. A notary public; or
2. By any respectable resident of the place where the bill is dishonored, in the presence of two or more credible witnesses."

When to Be Made.—Section 155. "When a bill is protested, such protest must be made on the day of its dishonor, unless delay is excused as herein provided. When a bill has been duly noted, the protest may be subsequently extended as of the date of noting."

Where Made.—Section 156. "A bill must be protested at the place where it is dishonored, except that when a bill drawn payable at the place of business or residence of some person other than the drawee has been dishonored by non-acceptance, it must be protested for non-payment at the place where it is expressed to be payable and no further presentment for payment to, or demand on, the drawee is necessary."

Protest for Nonacceptance and Nonpayment.—Section 157. "A bill which has been protested for non-acceptance may be subsequently protested for non-payment."

Protest Before Maturity Where Acceptor Is Insolvent.—Section 158. "Where an acceptor has been adjudged a bankrupt or an insolvent, or has made an assignment for the benefit of creditors, before the bill matures, the holder may cause the bill to be protested for better security against the drawer and indorsers."

When Protest Is Dispensed With.—Section 159. "Protest is dispensed with by any circumstances which would dispense with notice of dishonor. Delay in noting or protesting is excused when delay is caused by circumstances beyond the control of the holder and not imputable to his default, misconduct or negligence. When the cause of delay ceases to operate, the bill must be noted or protested with reasonable diligence."

Protest Where Bill Is Lost, Destroyed or Detained.—Section 160. "Where a bill is lost or destroyed, or is wrongfully detained from the person entitled to hold it, protest may be made on a copy or written particulars thereof."

ACCEPTANCE FOR HONOR.—Section 161. "Where a bill of exchange has been protested for dishonor by non-acceptance or protested for better security and is not overdue, any person not being a party already liable thereon may, with the consent of the holder, intervene and accept the bill supra protest for the honor of any party liable thereon or for the honor of the person for whose account the bill is drawn. The acceptance for honor may be for part only of the sum for which the bill is drawn; and where there has been an acceptance for honor for one party, there may be a further acceptance by a different person for the honor of another party."

Acceptance for Honor; How Made.—Section 162. "An acceptance for honor supra protest must be in writing and indicate that it is an acceptance for honor, and must be signed by the acceptor for honor."

When Deemed to Be an Acceptance for Honor.—Section 163. "Where an acceptance for honor does not expressly state for whose honor it is made, it is deemed to be an acceptance for the honor of the drawer."

Liability of Acceptor for Honor.—Section 164. "The acceptor for honor is liable to the holder and to all parties to the bill subsequent to the party for whose honor he has accepted."

Agreement of Acceptor for Honor.—Section 165. "The acceptor for honor by such acceptance engages that he will on due presentment pay the bill according to the terms of his acceptance, provided it shall not have been paid by the drawee, and provided also that it shall have been duly presented for payment and protested for non-payment and notice of dishonor given to him."

Maturity of Bill Payable after Sight; Accepted for Honor.—Section 166. "Where a bill payable after sight is accepted for honor, its maturity is calculated from the date of the noting for non-acceptance and not from the date of the acceptance for honor."

Protest of Bill Accepted for Honor, Etc.—Section 167. "Where a dishonored bill has been accepted for honor supra protest or contains

a reference in case of need, it must be protested for non-payment before it is presented for payment to the acceptor for honor or Referee in case of need."

Presentment for Payment to Acceptor for Honor; How Made.—Section 168. "Presentment for payment to the acceptor for honor must be made as follows:

1. If it is to be presented in the place where the protest for non-payment was made, it must be presented not later than the day following its maturity;
2. If it is to be presented in some other place than the place where it was protested, then it must be forwarded within the time specified in section one hundred and four."

When Delay in Making Presentment Is Excused.—Section 169. "The provisions of section eighty-one apply where there is a delay in making presentment to the acceptor for honor or referee in case of need."

Payment for Honor.—Section 171. "Where a bill has been protested for non-payment, any person may intervene and pay it supra protest for the honor of any person liable thereon or for the honor of the person for whose account it was drawn."

Payment for Honor; How Made.—Section 172. "The payment for honor supra protest, in order to operate as such and not as a mere voluntary payment, must be attested by a notarial act of honor, which may be appended to the protest or form an extension to it."

Declaration Before Payment for Honor.—Section 173. "The notarial act of honor must be founded on a declaration made by the payer for honor, or by his agent in that behalf declaring his intention to pay the bill for honor and for whose honor he pays."

Preference of Parties Offering to Pay for Honor.—Section 174. "Where two or more persons offer to pay a bill for the honor of different parties, the person whose payment will discharge most parties to the bill is to be given the preference."

Effect on Subsequent Parties Where Bill Is Paid for Honor.—Section 175. "Where a bill has been paid for honor, all parties subsequent to the party for whose honor it is paid are discharged, but the payer for honor is subrogated for, and succeeds to, both the rights and duties of the holder as regards the party for whose honor he pays and all parties liable to the latter."

Where Holder Refuses to Receive Payment Supra Protest.—Section 176. "Where the holder of a bill refuses to receive payment supra protest, he loses his right of recourse against any party who faces discharge by such payment."

Rights of Payer for Honor.—Section 177. "The payer for honor, on paying to the holder the amount of the bill and the notarial expenses incidental to its dishonor, is entitled to receive both the bill itself and the protest."

BILLS OF EXCHANGE IN A SET.—Section 178. "Where a bill is drawn in a set, each part of the set being numbered and containing a reference to the other parts, the whole of the parts constitute one bill."

Rights of Holders Where Different Parts Are Negotiated.—Section 179. "Where two or more parts of a set are negotiated to different holders in due course, the holder whose title first accrues is as between such holders the true owner of the bill. But nothing in this section affects the rights of a person who in due course accepts or pays the first part presented to him."

Liability of Holder Who Indorses Two or More Parts of a Set to Different Persons.—Section 180. "Where the holder of a set indorses two or more parts to different persons, he is liable on every such part, and every indorser subsequent to him is liable on the part he has himself indorsed, as if such parts were separate bills."

Acceptance of Bills Drawn in Sets.—Section 181. "The acceptance may be written on any part and it must be written on one part only. If the drawee accepts more than one part, and such accepted parts are negotiated to different holders in due course, he is liable on every such part as if it were a separate bill."

Payment by Acceptor of Bills Drawn in Sets.—Section 182. "When the acceptor of a bill drawn in a set pays it, without requiring the part bearing his acceptance to be delivered up to him, and that part at maturity is outstanding in the hands of a holder in due course, he is liable to the holder thereon."

Effect of Discharging One of a Set.—Section 183. "Except as herein otherwise provided where any one part of a bill drawn in a set is discharged by payment or otherwise, the whole bill is discharged."

Promissory Notes, Checks, Negotiable Bonds

PROMISSORY NOTE DEFINED.—Section 184. "A negotiable promissory note within the meaning of this Act is an unconditional promise in writing made by one person to another, signed by the maker, engaging to pay on demand or at a fixed or determinable future time a sum certain in money to order or to bearer. Where a note is drawn to the maker's own order, it is not complete until indorsed by him."

CERTIFICATE OF DEPOSIT.—Under the statute a certificate of deposit containing a promise to pay may be a promissory note, not a mere certificate of deposit. (174 Fed. 345; 9 N.Y. App. Div. 365.)

CHECKS.—Section 185. "A check is a bill of exchange drawn on a bank, payable on demand. Except as herein otherwise provided, the provisions of this act applicable to a bill of exchange payable on demand apply to a check.

"Checks are but inland bills of exchange, and subject to all the rules applicable to instruments of that character, and impose no obligation upon the drawee until accepted; and until presented and paid, are revocable by the drawer, who has the legal control of the moneys to his credit until acceptance of payment of the checks." (46 N.Y. 82; 107 N.Y. 179.)

A bank cashier's check, whether certified or not, is construed under the statute as a bill of exchange payable on demand. (143 N.C. 102.)

The only essential difference between a check and a bill of exchange is that a check is drawn upon a bank or banker. (8 N.Y. 190.)

Within What Time a Check Must Be Presented.—Section 186. "A check must be presented for payment within a reasonable time after its issue or the drawer will be discharged from liability thereon to the extent of the loss caused by the delay."

The courts have construed that reasonable time ends with the end of the next business day after delivery of the check. (128 N.Y. App. Div. 131; 98 S.W. 2d 320.)

Certification of Check.—Section 187. "Where a check is certified by the bank on which it is drawn, the certification is equivalent to an acceptance." (See Fig. 15.)

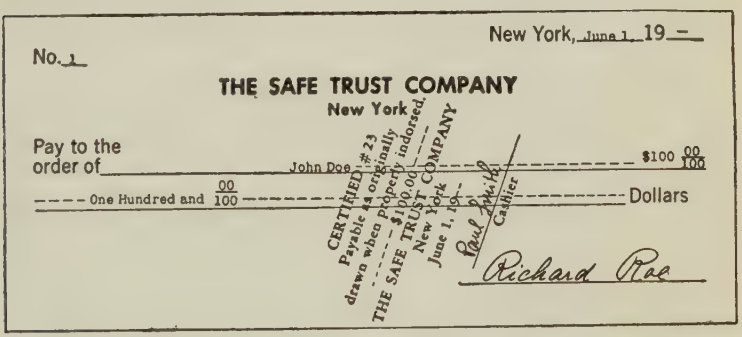


FIG. 15. Certified Check

The effect of certification by a bank before delivery to the payee is that the bank guarantees the genuineness of the signature of the drawer, that it has in its custody sufficient funds to meet the check, and that it agrees that the money shall not be withdrawn to the prejudice of the holder of the check. (79 N.Y. App. Div. 409.) The payee of a check, by procuring certification, accepts the bank as his debtor and releases the drawer of the check. (99 Fla. 745; 196 N.Y.S. 629.) But where the drawer obtains certification before delivery, he is not discharged from liability. (217 N.Y. 726.)

Where the Holder Has Check Certified.—Section 188. "Where the holder of a check procures it to be accepted or certified, the drawer and all indorsers are discharged from liability thereon."

When Check Operates as an Assignment.—Section 189. "A check of itself does not operate as an assignment of any part of the funds to the credit of the drawer with the bank, and the bank is not liable to the holder, unless and until it accepts or certifies the check."

Prior to the enactment of this section, it was a well-established rule that a check in the usual form, unless accepted or certified by the bank, did not operate as an assignment of the depositor's funds. (32 N.E. 38.) The holder of an uncertified check has no cause of action against the

drawee bank for refusal to pay the check, even though the maker had sufficient funds on deposit. (186 S.W. 471.) The depositor, however, being a party to a contract of deposit with the bank, may sue the bank for injury to his credit. (134 N.Y. 368.)

NEW YORK STATE PROVISIONS.—The following provisions in force in the State of New York are not a part of the Uniform Negotiable Instruments Act. The section numbers as given refer to the **Negotiable Instruments Law of New York.**

NO STOPPING PAYMENT AFTER CERTIFICATION.—Section 325-a. "A bank, banker or trust company which has certified a check, note or other instrument for the payment of money at the request of the drawee, payee or holder thereof, shall not thereafter be required to stop or refuse payment thereof upon the order, demand or request of the drawee or of any other party thereto."

RECOVERY OF A FORGED CHECK.—Section 326. "No bank shall be liable to a depositor for the payment by it of a forged or raised check, unless within one year after the return to the depositor of the voucher of such payment, such depositor shall notify the bank that the check so paid was forged or raised."

While the drawer of a check may be liable where he draws the instrument in an incomplete form so as to facilitate or invite fraudulent alterations, the law does not require him to prepare the check so that nobody can successfully tamper with it. (63 N.E. 969.)

HOW NEGOTIABLE BONDS ARE MADE NONNEGOTIABLE.—Section 332. "The owner or holder of any corporate or municipal bond or obligation (except such as are designated to circulate as money, payable to bearer), heretofore or hereafter issued in and payable in this State, but not registered in pursuance of any State Law, may make such bond or obligation, or the interest coupon accompanying the same, non-negotiable, by subscribing his name to a statement endorsed thereon that such bond, obligation or coupon is his property; and thereon the principal sum therein mentioned is payable only to such owner or holder, or his legal representatives or assigns, unless such bond, obligation or coupon be transferred by indorsement in blank, or payable to bearer, or to order, with the addition of the assignor's place of residence."

LEGAL EFFECT OF INDORSEMENTS.—Section 350-C. "An indorsement of an item by the payee or other depositor, 'for deposit' shall be deemed a restrictive indorsement and indicate that the indorsee bank is an agent for collection and not owner of the item.

"An indorsement 'pay any bank or banker' or having equivalent words shall be deemed a restrictive indorsement and shall indicate the creation of an agency relation in any subsequent bank to whom the paper is forwarded unless coupled with words indicating the creation of a trustee relationship; and such indorsement or other restrictive indorse-

ment whether creating an agency or trustee relationship shall constitute a guaranty by the indorser to all subsequent holders and to the drawee or payor of the genuineness of and the authority to make prior indorsements and also to save the drawee or payor harmless in the event any prior indorsement appearing thereon is defective or irregular in any respect unless such indorsement is coupled with appropriate words disclaiming such liability as guarantor.

"Where a deposited item is payable to bearer or indorsed by the depositor in blank or by special indorsement, the fact that such item is so payable or indorsed shall not change the relation of agent of the bank of deposit to the depositor, but subsequent holders shall have the right to rely on the presumption that the bank of deposit is the owner of the item. The indorsement of an item by the bank of deposit or by any subsequent holder in blank or by special indorsement or its delivery when payable to bearer, shall carry the presumption that the indorsee or transferee is owner provided there is nothing upon the face of the paper or in any prior indorsement to indicate an agency or trustee relation of any prior party. But where an item is deposited or is received for collection indorsed specially or in blank, the bank may convert such an indorsement into a restrictive indorsement by writing over the signature of the indorser the words 'for deposit' or 'for collection,' or other restrictive words to negative the presumption that such bank of deposit or indorsee bank is owner; and in the case of an item deposited or received for collection payable to bearer, may negative such presumption by indorsing thereon the words 'Received for deposit' or 'Received for collection' or words of like import."

DUTY AND RESPONSIBILITY OF BANK COLLECTING AGENTS.—Section 350-D. "It shall be the duty of the initial or any subsequent agent collecting bank to exercise ordinary care in the collection of an item and when such duty is performed such bank shall not be responsible if for any cause payment is not received in money or an unconditional credit given on the books of another bank, when such agent bank has requested or accepted. An initial or subsequent agent collecting bank shall be liable for its own lack of exercise of ordinary care but shall not be liable for the neglect, misconduct, mistakes or defaults of any other agent bank or of the drawee or payor bank."

A bank receiving a check for collection acts as agent and may be liable upon proof of its failure to exercise ordinary care. (244 N.Y. App. Div. 68.)

Trade and Banker's Acceptances

TRADE ACCEPTANCES.—"A trade acceptance is a 'draft or bill of exchange drawn by the seller on the purchaser of goods sold, and accepted by such purchaser' (Regulations Fed. Reserve Board relating to Acceptance, Section A, Paragraph V, Subd. a)." (241 N.Y. 239.) (See Fig. 16.)

BANKER'S ACCEPTANCE.—"A banker's acceptance is a draft or bill of exchange of which the acceptor is a bank or banker engaged generally in the business of granting banker's acceptance credits." (241 N.Y. 239.)

It might thus be stated that a trade acceptance is a special form of a bill of exchange drawn by the seller of goods to his purchaser and then accepted by the purchaser. If drawn and executed in conformity with the Negotiable Instruments Law, it is a negotiable instrument and is governed by such law. A trade acceptance is different from a promissory note in that it is drawn by one person on another, while the promissory note is drawn by one person to the order of another.

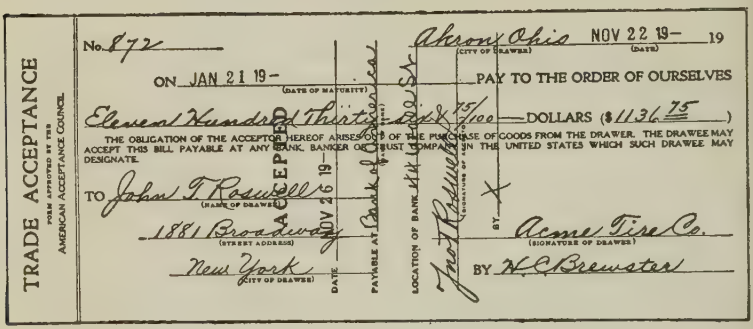

TRADE ACCEPTANCE
AMERICAN ACCEPTANCE COUNCIL
No. 872
Akron, Ohio NOV 22 19— 19
ON JAN 21 19—
PAY TO THE ORDER OF OURSELVES
Eleven Hundred Thirty-six 75/100 DOLLARS ($1136.75)
THE OBLIGATION OF THE ACCEPTOR HEREOF ARISES OUT OF THE PURCHASE OF GOODS FROM THE DRAWER. THE DRAWEE MAY ACCEPT THIS BILL PAYABLE AT ANY BANK, BANKER OR TRUST COMPANY IN THE UNITED STATES WHICH SUCH DRAWEE MAY DESIGNATE.
TO John T. Roswell
1881 Broadway
New York
ACCEPTED NOV 22 19
PAYABLE AT Bank of Commerce
LOCATION OF BANK
Jno T Roswell
BY
Acme Tire Co.
BY W. C. Brewster

FIG. 16. Trade Acceptance

The Negotiable Instruments Law specifically provides that the negotiability of an instrument is not to be affected by the fact that it contains on its face "a statement of the transaction which gives rise to the instrument." The courts have literally interpreted the wording used. For safety's sake, the language should be limited to the statement "The transaction which gives rise to this instrument is the purchase of goods by the acceptor from the drawer." Any provision giving a title retention clause in the trade acceptance has been held to render it non-negotiable. (159 N.E. 625.)

Letters of Credit.—Letters of credit used primarily in foreign trade, authorize the beneficiary to draw drafts upon a bank for acceptance and payment, under specified conditions. Letters of credit are not generally construed to be negotiable instruments.

Interest

DEFINITION.—Interest is "money to be paid for the use of capital, on a loan of money, or forbearance of a debt and becomes part of and incident to a debt; or it is damages for the detention of a debt due, and fixed by law, at a given rate, in proportion to the amount of money lent, or detained, and the time for which it is thus lent or detained." (8 Gray Mass. 267, 278.)

Compound interest is "interest added to the principal as the former becomes due, and thereafter made to bear interest." (3 Dak. 449.) Compound interest is not favored by the courts and will not be allowed unless authorized by statute or by contract, expressed or implied. (43

Fed. 231.) The legal rate of interest is the rate prescribed by law which is to prevail in the absence of any special agreement between the parties.

Lawful interest is any rate of interest agreed upon by the parties, but not in excess of the maximum rate fixed by statute. The rate of interest permitted by statute is fixed by state law and varies among the states. The only safe course is to determine the rate set by statute in the jurisdiction in question. In general, in the absence of agreement, where interest is to be paid the rate is governed by the law of the place where the contract was made. (149 U.S. 122.) Where, however, a contract involving interest is made in one state and the contract is to be performed in another state, the law of the place of performance will govern. (142 U.S. 101.) It has also been held that the parties may agree to be bound by the interest laws of the place where the contract was entered into, instead of the place of performance. (13 Fed. 198.)

Interest laws, since they are statutes and are in derogation of common law, must be strictly construed.

Under some statutes a usurious instrument is void, and the holder of such an instrument cannot recover either interest or principal. Explanations of this rule are mentioned below.

A promissory note ordinarily does not bear interest prior to its maturity, unless it is an interest bearing obligation and actually contains the words "with interest." In that event, interest is to be computed from the date of the instrument. (147 N.E. 641.) But all written instruments referring to the payment of money, whether interest-bearing or noninterest-bearing, carry with them an implied promise to pay interest if the debt is not paid when due. (129 U.S. 601.)

Where invoices accompanying goods contain the terms of sale, together with words to the effect that bills are to bear interest after maturity, and the consignee accepts them without objection, they constitute a contract for the payment of such interest. (187 Ill. 283.) Under certain circumstances, also, well-known and long-established customs generally followed within the trade that interest is to be payable under certain conditions result in an implied contract to pay interest. (161 N.Y. 530.) "This knowledge may be established by presumptive as well as direct evidence. It may be inferred from the uniformity and long continuance of the usage, from the fact that a party has for some time been in the particular trade to which it relates, from the previous dealings between the parties, or from any other facts tending to show its general notoriety." (64 Mass. 250.)

As a general rule, interest is not allowed on an open and running account. It may be agreed by the parties, however, that interest is to be paid on the amount actually due when it has been ascertained. If this is the case, there is no law prohibiting such a contract. In the case of settled accounts interest will be allowed where the balance due has been agreed upon by the parties. (88 U.S. 105.)

With unliquidated claims where the amount due cannot be determined by any method of computation, it is implied that no interest is to run prior to the entry of a verdict or decision in the case in question. (232 Pac. 1002.)

Under the New York statute, when final judgment is rendered for a sum of money awarded by a verdict, report or decision, interest upon the amount awarded from the time when the verdict is rendered or the

report or decision made to the time of entering the judgment is added to the award and included in the amount of the judgment.

RATE OF INTEREST AFTER MATURITY.—The federal courts follow the rule that interest on an obligation after maturity is computed at the legal rate. (51 Fed. 2d 46.) In many states, however, the rate of interest agreed upon by the parties in their agreement continues after maturity as well as before maturity. (112 Mass. 63.)

Interest runs on an interest-bearing obligation from the date of the instrument or from the time agreed upon by the parties. Where no agreement is made, the interest runs from the date the principal becomes due. (233 U.S. 261.) In some obligations such as debts, due bills and obligations payable on demand, interest does not begin to accrue until demand for payment is made. (119 N.Y. 62.) "Interest does not begin to run from the date of such note, unless expressly reserved, because interest, unless stipulated for, is only allowed as damages in default of payment, and the maker is not considered in default until payment is demanded or suit is brought, which is a judicial demand." (119 Atlantic 420.)

In the case of an instrument payable at a fixed time interest will begin to run although no demand for payment is made.

STOPPING INTEREST.—The accruing of interest will stop under the following circumstances:

1. On payment of the principal of the debt.
2. Improper acts of the creditor making it impossible for the debtor to pay the debt. (58 Fed. 653.)
3. Laches. Where the creditor delays unreasonably in pressing his claim against the debtor, he forfeits interest which cannot be collected. (110 U.S. 174.)
4. Absence of the creditor. Where the creditor cannot be found or is absent from the country and has left no agent to collect the debt, interest will cease if the debtor has made diligent effort to find his creditor.
5. Valid tender. "The reason for such a rule rests in the fact that the person to whom the tender was made, if the same tender is sufficient to satisfy him for his debt and for his costs, is bound to take it, and if he does not, while the debt is not paid, the liability of the debtor for interest is suspended." (179 N. Y. App. Div. 57.) It should be noted, however, that a tender of payment before maturity is not valid and does not stop the running of interest. The tender must indicate that the debtor is ready, willing, and able to pay the debt according to the terms thereof and his tender must be unconditional and in the proper amount. The circumstances of the offer must be such that it leaves the creditor free to accept the amount offered without prejudice, and the amount tendered is all that is due. A check, even though certified, is not a good tender. (100 S.E. 37.) In the case of a promissory note payable at a bank, sufficient tender is made if there is money to pay the note on deposit to the maker's credit in the bank on the date payment is due.
6. Payment suspended by court order. Where the payment of a debt is suspended by an order of a court of proper jurisdiction, interest ceases to accumulate. (149 U.S. 95.)
7. Deposit in court. A deposit made in a court of proper jurisdiction at the direction of the court suspends the accumulation of interest.

"UNITED STATES RULE."—What is generally known as the United States Rule for computing interest on partial payments is set forth in 1 Johns. (N.Y.) 136: "The rule for casting interest, where partial payments have been made, is to apply the payment, in the first place, to the discharge of the interest then due. If the payment exceeds the interest, the surplus goes toward discharging the principal, and the subsequent interest is to be computed on the balance of principal remaining due. If the payment be less than the interest, the surplus of the interest must not be taken to augment the principal; the interest continues on the former principal until the period when the payments, taken together, exceed the interest due, and then the surplus is to be applied towards discharging the principal; and interest is to be computed on that balance as aforesaid."

In general, the foregoing rule in computing interest is followed by the courts where the contracts of the parties or the usages of trade do not indicate the use of some other theory or method of computing interest. In the administration of estates and relations with the government, this method is also followed.

As against the United States Rule, there is the Mercantile Rule which provides that where it is the agreement of the parties or the custom of trade, the balance of the debt due is computed by calculating the interest on each item of the debt on one side, and allowing interest for each payment on the other.

Usury

DEFINITION.—"Usury consists of extorting or taking a rate of interest for money beyond what is allowed by law. It is not necessary that money should be actually advanced, in order to constitute the offense of usury, but any pretense or contrivance whatever, to gain more than legal interest, where it is the intent of the parties to contract for a loan, will make the contract usurious." [3 Johns. (N.Y.) 206.]

"Three things must unite to render any contract usurious.

"First, there must be a loan, express or implied. Second, there must be an agreement that the money lent or, which is the same thing, that which is lent for the purpose of raising money shall be repaid without conditions or contingency. And, third, there must be an agreement to pay a higher rate of interest than that allowed by statute." (4 N.Y. 363.)

The main test of any usurious contract is that, if it is performed, it will result in producing to the lender a higher rate of interest than is allowed by law. Under the usury laws, it would appear that the lender alone is the violator of the law and it is against him that penalties are to be enforced.

It is a requirement of procedural law that if a defense of usury is to be used, it must be affirmatively pleaded and proved by the borrower inasmuch as there is a presumption that all contracts are intended to be lawful. (120 N.E. 694.)

As was stated above, the place where a contract is executed determines the rights and liabilities of the parties involved, and the usury laws of that particular state apply. The intent of the parties must be in good faith and not for the purpose of evading the usury laws of another state.

Provided the arrangement is not a mere device to evade the usury laws of a sister state, a note made in one state, payable in another, may lawfully bear a rate of interest permitted in either state. (43 Fed. 2d 730.)

EXCEPTIONS TO THE GENERAL USURY RULE.—In most states by special statute certain types of corporations, associations, and banking organizations are permitted to charge higher rates of interest than is allowed the ordinary lender. Personal loan companies and industrial banking companies in some instances can charge up to 3% per month. Since these institutions function under special statute, reference must be had to the law in question to determine the maximum rates they may charge.

To obviate unfair competition between them, state and national banks are permitted to charge the same rate of interest in the jurisdiction in which they are located. Where there is no rate fixed by law, a national bank may charge 7%. Another exception not to be classed with the above is the duly licensed pawn broker whose loans are secured by the pledge of personal property. By special statute in most states, he is allowed to charge a higher rate of interest.

There are other exceptions, such as "call money" in New York. The General Business Law of that state, Section 379, provides on any loan not less than $5,000 secured by warehouse receipts, bills of lading, certificates of stock, certificates of deposit, bills of exchange, bonds or other negotiable instruments pledged as collateral, it shall be lawful to receive or to contract to receive and collect, as compensation for making such loan, any sum to be agreed upon in writing by the parties to the transaction.

TRANSACTIONS NOT CLASSIFIED AS USURIOUS.—Certain transactions are not considered usurious. These are as follows:

Discounting.—The mercantile custom of deducting interest in advance on short term paper does not make the transaction usurious. (12 N.Y. 223.) Compound interest is not usury. (37 N.E. 840.)

A Capital Contribution of a Partner is not a loan, and therefore any interest paid on such an investment, even though in excess of the lawful rate, does not constitute usury. (91 N.Y. 43.)

Corporations.—In New York and many other states, under no circumstances can a corporate debtor plead usury as a defense. The net result is that interest can be charged a corporation at any rate the traffic will bear, which in effect repeals the usury laws for corporate obligations. (15 N.Y. 9.) The underlying reason for this is that usury laws were passed to protect helpless needy borrowers from the lender. But corporations can secure capital from a large number of persons to satisfy their needs, and so it is not considered to require protection of usury statutes.

To make a transaction usurious, the usury must arise at the inception of the contract or the instrument. The mere sale of a negotiable instrument by a holder at a substantial discount will not constitute usury.

No sale or exchange of property can become usurious under any conditions. But such a sale cannot be used merely for a cloak to hide what is on its face a usurious transaction. Where a borrower, as a condition to his obtaining a loan, is compelled to purchase property at an

exorbitant price, even though the money loaned bears lawful interest it is considered to be a usurious transaction. (101 N.Y. 643.) As a general proposition the courts will look with disfavor on any device, no matter how skillfully devised, resorted to as a cover for usurious loans. The form of the transaction may be set aside to discover the real intent of the parties, and if the transaction is basically usurious, the courts will treat it as unlawful.

WHEN CONTRACT IS VOID.—When a usurious contract is void under the statutes, the lender cannot enforce it.

WHEN INTEREST IS FORFEITED.—When the statutes declare that all interest is forfeited in a usurious contract, the lender may nevertheless recover the principal. (N.Y. Banking Law, Section 108.)

WHEN USURIOUS EXCESS IS FORFEITED.—In those states where the statute declares the excess over the legal rate of interest to be forfeited, the lender can recover the principal and legal interest. (39 Ind. 305.)

NEW YORK STATE RULE.—In New York, the maximum rate of interest permitted by law is 6% per annum. Usurious contracts are void and the lender forfeits both principal and interest, except in the case of banks and other exempt lenders. A mortgage or other security given for a usurious loan is also void, and the bond and mortgage can be cancelled without paying back what has been received. (N.Y. General Business Law, Sections 370–382.)

Where the interest payments have been made in excess of the legal rate, they can be recovered by the borrower.

MISDEMEANORS.—In some states the taking of usurious interest is specifically made a misdemeanor and subjects the lender to criminal prosecution.

SECTION 25

COMMODITY TRADING

CONTENTS

PAGE

Evolution and Nature of Futures Trading

Trading methods 1099
Distinction between cash and futures markets 1099
Origin and scope of futures exchanges 1100
Selling on samples 1100
Growth of futures trading 1100
Commodity exchanges abroad 1101
Commodities adapted to futures trading 1101
Volume of trading 1102
The futures contract 1102
Legal nature of contract 1102
Main features of contract 1103
Sample contract 1103
Deliverable grades of commodities.. 1103
Basis grade of a commodity 1104
Determination of differentials 1104
Delivery rules 1104
Delivery points 1105

Organization and Functions of Commodity Exchanges

Form of organization 1105
Purpose of exchanges 1105
Memberships 1105
Management 1106
Standing committees 1106
Rules and regulations 1107
Chief functions of futures exchanges 1107
The market function 1107
The insurance function 1107
Diffusion of risks 1108
Free versus controlled markets 1108

Regulation of Commodity Exchanges

Early legislative moves 1108
The Cotton Futures Act 1109
The Grain Futures Act 1109
The Commodity Exchange Act of 1936 1109
Scope of Act 1110
Constitutionality 1110
Prevention of manipulation 1111
A wash sale 1111
Other unfair trading practices 1111
Curbs on speculation 1112
Prevention of squeezes 1112
Cease-trading period 1112
Handling of customer's funds 1113

PAGE

Administration of control 1113
Organization 1113
Registration 1114
Reports on holdings 1114
Reporting limits 1115
Special calls 1115
Penalties 1115
Self-regulation of exchanges 1115
Margin rules 1116
Association of commodity exchanges 1116

Mechanism of Futures Trading

Trading facilities 1116
Handling of orders 1117
Market and limit orders 1117
Short selling 1117
Stop-loss orders 1117
Execution of commodity orders 1118
The day's cotton futures quotations 1118
Quotations on cotton futures as published in a trade journal (*f.* 1) 1118
Contract units 1119
Data on trading in futures contracts (*f.* 2) 1120–1121
Job lot trading 1119
Price fluctuations 1122
Minimum fluctuations 1122
Daily fluctuation limits 1122
Trading and position limits 1122
Grains 1123
Rye 1123
Cotton 1123
Margin practices 1123
Extension of credit 1124
Commission rates 1124
Liquidation of futures contracts 1125
Liquidation by deliveries on contract 1125
Seller's options 1125
First notice day 1125
Delivery notices 1126
Delivery notice used by Chicago Board of Trade (*f.* 3) 1127
Deliverable grades 1126
Notice procedure 1129
Liquidation through offset 1129
Switching 1129
Liquidation through settlement 1130

Clearing House Functions

Need for central clearing 1130
Evolution of clearing methods 1131

PAGE

The modern clearing house 1131
Basic theory of the clearing house.. 1131
Purposes of the clearing house 1132
Financial safeguards 1132
Daily reports on transactions 1132
Original margins 1132
Variation margin 1133
Handling of deliveries 1133

Hedging

Theory and practice of hedging 1133
Definition of hedging 1133
Major types of hedges 1133
Processor's hedge 1134
Importer's hedge 1134
Dealer's hedge 1134
Producer's hedge 1134
Manufacturer's hedge 1135
Hedging inventories 1135
Hedging versus speculation 1135
Tax status 1135
Limitations of hedging 1135
Deviations in price spreads 1136
Basis gains and losses 1136
Expected and unexpected basis changes 1136
Hedging and insurance 1136
Problems in hedging 1137
Placing a hedge 1137
Shifting a hedge 1137

PAGE

Problems in hedging—*Continued*
Hedging balances 1137
Anticipating hedge requirements ... 1137
Buying cotton on call 1138
Mechanics of "call cotton" transaction 1139

Interpreting Futures Markets

Importance of market information .. 1139
Price spreads 1140
Trading volume 1140
Open interest figures 1140
Open interest reports 1141
Open interest formula 1141
Delivery cycles 1141
Danger signals 1141
Deliverable stocks 1142

Spot Commodity Markets

Cash dealings in commodities 1142
Determination of spot prices 1143
Price reporting 1143
Trade terms used in cash commodity transactions 1143
"F.A.S. (named port)" 1143
"F.O.B. (named port)" 1144
"Freight equalized" 1144
"C.A.F. (named destination)" 1145
"Delivered (named destination)" .. 1145
"In store" 1145

SECTION 25

COMMODITY TRADING

Evolution and Nature of Futures Trading

TRADING METHODS.—Trading in commodities is the lifeblood of the economy. Evolution of trading methods has characterized the development of the modern economy, particularly during the past 100 years.

With the development of modern transportation and communications, commodity trading methods had to be adjusted to longer distances between the place of origin and that of consumption of many commodities, as well as to the long periods of time that often elapse between production and final consumption. It became impossible to buy many commodities on sight or even "on sample."

Trading of commodities against cash in hand ceased to be sufficient to satisfy the needs of a rapidly expanding economy. Contract forms had to be developed which would permit bridging the gap in distances and in time involved in the flow of commodities from producer to consumer. The ultimate result of this trend was the development of markets on which commodities are traded on the basis of strict specifications rather than on sample, and where they may be bought or sold well in advance of actual possession. The markets developed for these purposes are called commodity futures exchanges. Due to the fact that trading on them is based on carefully developed contract forms and is conducted according to strict trading rules, these markets are also known as "organized" commodity markets. Only a few "spot" markets are conducted as organized markets.

Commodities today are bought and sold either on "cash" markets or on these "futures" markets. Cash markets are called **spot markets,** to indicate when immediate fulfillment of a contract is intended.

Distinction Between Cash and Futures Markets.—Despite the origin of these two types of commodity markets, the chief difference between them today is not the time element involved in the delivery of a commodity. In this respect, the commonly used terms are distinctly misleading.

Dealings in **cash markets** are mostly for immediate delivery, but they may also be for "forward" or "to arrive" delivery, in which case a specific delivery date is set in the contract. Usually this is a specified month. Actually a huge volume of business today is conducted on this basis.

On the other hand, trading in "futures" markets may be for delivery in the current month. Consequently, such contracts may be terminated within a very brief period.

The chief difference between cash and futures markets lies in the **form of contract** used, rather than in the delivery periods involved.

In "spot" (or "cash") markets, commodities are bought and sold in specific lots and grades with a definite delivery date specified.

On "futures" markets, commodities are bought and sold on the basis of standard contracts established by organized commodity exchanges. These contracts may not be altered in individual transactions, and differ from each other only as far as prices and delivery months are concerned, which are left to the determination of the contracting parties. This forms the basis for the legal definition of a futures contract.

ORIGIN AND SCOPE OF FUTURES EXCHANGES.—The development of modern futures exchanges was a process of gradual evolution. Trading in contracts for commodities for future delivery started on an informal basis, before the adoption of formal rules, around the middle of the 19th century.

The principle of definite time contracts grew out of dealings in "to-arrive" contracts.

The practice of selling on a "to-arrive" basis developed around the middle of the last century, both in the cotton trade in this country and in England and in the American grain trade following the opening of the West and the necessity of linking the new western producing areas with Chicago as the established grain trading center.

The desirability of quoting regular prices for such forward contracts and for the development of uniform trading practices led to the organization of the Chicago Board of Trade in 1848. By 1859 trading in contracts for future delivery was well developed, and in 1869 the Chicago Board of Trade adopted its first rules for the regulation of trading in "futures" contracts.

Selling on Samples.—In the cotton trade the development of modern formalized trading practices goes back to the advent of the steamship. Shipping cotton by sailing vessels became extremely hazardous as soon as news between the two continents began to travel by faster steamboats. Since this created considerable price risks, the practice developed to take samples from bales which were being shipped to Liverpool and offer them for sale in New York "to arrive" at Liverpool. If not sold in New York, these samples were sent by steamer to Liverpool and offered for sale there. In 1863 the Liverpool Cotton Association adopted written rules for dealing in such "to-arrive" contracts.

The next important step forward was the completion of the transatlantic cable in 1866. Due to the greater speed of communication between the continents, trading by samples became antiquated and was replaced by selling on the basis of an established specified grade, usually "middling—nothing below low middling." Active dealing in these cotton contracts developed in New York and in 1870 the **New York Cotton Exchange** was organized. At Liverpool, trading in cotton futures contracts began in 1875.

Growth of Futures Trading.—While futures trading in grains and cotton emerged gradually from older trade practices, futures trading in other commodities was organized by taking over, with minor modifications, practices developed in grains and cotton. Up to World War I, diversification in futures markets developed only gradually; after World

War I the number of commodities traded on organized futures exchanges expanded more rapidly.

The starting dates of futures trading in various commodities in the United States follow:

1859*	Grains	1929	Cottonseed
1869*	Cotton	1929	Cottonseed meal
1870	Lard	1931	Wool tops
1882	Coffee	1931	Potatoes
1892	Flaxseed	1931	Molasses
1904	Cottonseed oil	1931**	Silver
1914	Sugar	1934	Lead
1919	Butter and eggs	1934	Zinc
1925	Cocoa	1935	Tallow
1926	Rubber	1936	Soybeans
1928	Raw silk	1937	Black pepper
1928	Tin	1940	Soybean oil
1929	Copper	1941	Onions
1929	Hides	1946	Soybean oil (refined)
1929	Millfeed		

* Approximate dates.
** Suspended after silver purchase in 1934.

During the last war, trading in most futures markets was suspended or came to a standstill, due to establishment of price ceilings and allocation controls. The grain and cotton markets remained open. Futures markets resumed active trading, with minor exceptions, in 1947. Trading in such commodities as rubber, hides, and the metals was again temporarily suspended after the Korean outbreak.

Commodity Exchanges Abroad.—Commodity futures trading is conducted on a world-wide basis. Up to the outbreak of World War II, trading was featured by a keen rivalry between American and British commodity markets for the leading world role. The war set back futures trading in England even more than in the United States.

Before the war commodity exchanges outside of this country were located in the following centers:

Cotton	—Liverpool	Sugar	—London
	Alexandria		Paris
	Bombay		Hamburg
	Sao Paulo	Coffee	—Rio de Janeiro
	Le Havre		Santos
	Bremen		Le Havre
Grains	—Winnipeg	Cocoa	—London
	Liverpool		Liverpool
	Buenos Aires	Rubber	—London
	Rosario		Singapore
	Rotterdam	Silk	—Yokohama
	Berlin		Kobe
Metals	—London		

Commodities Adapted to Futures Trading.—Not all commodities are adapted to futures trading, as was amply demonstrated by the failure of experiments with futures markets for tobacco, fuel oil and gasoline, live hogs, and crude soybean oil. Futures trading in steel scrap has been stymied by trade opposition.

To provide a suitable trading medium for a futures market, a commodity must meet certain qualifications. It must be sold in bulk; it must be interchangeable, susceptible to grading, and imperishable. In addition, demand and supply must be uncertain, so that it is subject to wide price fluctuations from time to time, and the futures market must enjoy substantial trade acceptance.

Volume of Trading.—In 1929 the value of futures transactions was estimated at 42.3 billion dollars. Grains and cotton accounted for the bulk of this total. Grains futures trading in that year totaled 29.1 billions, or 70% of the total, and cotton futures trading, 10.8 billions, or 25%. All other futures markets combined accounted for only 5% of the total, and nearly half of this balance was represented by the New York Coffee and Sugar Exchange. Only during the decade preceding the outbreak of World War II was headway made by the newer futures markets.

In 1939, futures trading aggregated 2,423,623 contracts (in units of each exchange). Grains accounted for 60% of this total and cotton 18%. All other futures markets accounted for 22%, with sugar, cocoa, hides, rubber, eggs, and cottonseed oil trading the more active.

THE FUTURES CONTRACT.—A futures contract is a legal agreement to deliver or accept a definite quantity of a particular commodity during a specified calendar month at an agreed price. It is enforceable by law and under the rules of the exchange concerned.

Legal Nature of Contract.—The seller of a futures contract has the right to deliver, on due notice, the actual commodity at any time during the **delivery month** specified in the contract. The buyer is under obligation to accept such delivery against full payment according to the rules and regulations of the exchanges, unless he terminates his contract through an **offsetting transaction** by selling a futures contract.

The fact that very few futures contracts are actually fulfilled by delivery does not change the basic legal nature of the contract. Consequently, it is incorrect to describe the futures contract as an option, as is frequently done. Futures exchanges, while not dealing in actual commodities, deal in rights to the commodity. These rights can be legally enforced.

The United States Supreme Court has held that **trading in commodity futures does not constitute gambling.** (Justice Holmes of the United States Supreme Court in an appeal of the case of Christie Grain & Stock Co., et al. v. Chicago Board of Trade, 1905, 798 U. S. 236.)

So long as an exchange makes ample provision for sellers or buyers to make or take delivery if they so choose, the presumption is that actual delivery is intended or contemplated. Where this right is withdrawn, as in bucketing trades or by private agreement, it may be inferred that delivery is neither intended nor contemplated, and that the parties to such agreements were merely betting on price differences. Such practices are prohibited by law and under the regulations of the exchanges.

The only optional element involved in a futures contract is the fact that the seller may decide, within the specified delivery month of the contract, on what day of the month and—again within the exchange rules—which grade of the commodity he wants to deliver. This is usually called the "seller's" option. (For details see discussion of the liquidation of futures contracts below.)

Main Features of Contract.—The modern futures contract embodies the following special features:

1. It covers the sale of a stipulated amount of the commodity.
2. It refers to a specified grade of this commodity.
3. The seller is given the choice of making delivery at any date between specified limits.
4. Enforcement of the contract is insured by cash margins which are deposited by each of the contracting parties.

Sample Contract.—The cotton futures contract used by the New York Cotton Exchange follows:

NEW YORK COTTON EXCHANGE
Contract

New York ..... 1 .....
Sold

of the County and State of New York have this day Bought and agreed deliver to to receive from C.D. of the same place 50,000 pounds in about 100 square bales of cotton, growth of the United States, at the price of ..... cents per pound for Middling, with additions or deductions for other grades in accordance with the provisions of the United States Cotton Futures Act, Section 6, and with additions for staple premiums or deductions for staple discounts, deliverable from licensed warehouse in (.....)
Point of Delivery

between the first and last delivery days of ..... inclusive, the delivery within such time to be at seller's option in one warehouse, upon notice to buyer, as provided by the By-Laws and Rules of the New York Cotton Exchange. The Cotton dealt with herein or delivered hereunder shall be of, or within, the grades for which standards are established by the Secretary of Agriculture, except cotton prohibited from being delivered on a contract by the fifth sub-division of Section 5 of the United States Cotton Futures Act, and shall be of no other grade or grades, and shall be subject to New York Cotton Exchange inspection.

Either party may call for a margin, as the variations of the market or like deliveries may warrant, which margin shall be kept good.

This contract is made in view of, and in all respects subject to the regulations made pursuant to said United States Cotton Futures Act and to the By-laws and Rules of the New York Cotton Exchange not in conflict with said Act or said regulations.

Subject to United States Cotton Futures Act, Section Five.

Deliverable Grades of Commodities.—The price at which a futures contract is quoted refers to a particular grade of the commodity which is described in the contract and is known as the "basis" or "contract" grade. However, the commodities delivered on such contract may be either of the contract grade or of some other grade, which may be delivered at the seller's choice at a price above or below the contract price.

The number of deliverable grades varies on different exchanges, as does the method of determining the price differentials.

Some contracts, such as the rubber futures contract, have only one deliverable grade.

The need for a basis contract arises from the fact that commodities traded on organized exchanges have many grades which are well recognized in the trade. Determination of the number of grades which shall

be tenderable against exchange contracts and what shall be the basis grade pose one of the most important and far-reaching problems of the exchange, since the usability of the exchanges depends largely on this factor.

Basis Grade of a Commodity.—The basis or contract grade—that named in the contract—is usually the one in widest commercial use. Other deliverable grades may be superior or inferior in quality to the basis grade. Hence they may command either premiums over or discounts under the price for the basis grade.

Experience has shown that price manipulation may occur where tenderable grades represent too small a proportion of the total supply of the commodity. If tenderable grades are too numerous, the less desirable grades tend to be delivered on exchange contracts. As the buyer must allow for the fact that he may be tendered the least desirable grade if he accepts delivery, the whole futures price structure may be depressed. In both instances, the value of an exchange for hedging purposes will be diminished.

Grading may be done solely in accordance with the by-laws and regulations of an exchange; or grading standards may be prescribed by law.

Determination of Differentials.—Methods used in the determination of differentials for deliverable grades vary among individual exchanges, but in each instance the procedure is specifically covered by the rules of the exchange. There are two major types of differentials: fixed or variable.

A typical case of fixed differentials is the hides futures contract used on Commodity Exchange, Inc., New York. The basis grade of this contract is light native cow hides. In addition, 4 other grades are deliverable at the basis price. Four grades command premiums ranging from 1¼¢ to ½¢ per pound while 9 are discount grades deliverable at specified discounts ranging from ½¢ down to 1¼¢ per pound.

Variable differentials are used in the cotton futures market. The grade differentials for deliveries on cotton futures contracts are determined on the basis of average commercial differentials prevailing from day to day in bona fide spot markets in the South, officially designated by the Secretary of Agriculture under the U. S. Cotton Futures Act. The spot market differentials are established at each market by a committee consisting of spot cotton trade members who must be approved by the Bureau of Agricultural Economics. These committees meet daily at 3:00 P.M., New York time, and establish prices for grades and staples. Those for deliverable grades are wired to the Department of Agriculture, which then calculates the average of the grade and staple differentials above and below Middling 15/16″ and sends them to the markets.

The 10 spot markets designated for the determining differentials for various qualities of spot cotton delivered on futures contracts are:

Dallas	Charleston
Galveston	Montgomery
Houston	Augusta
New Orleans	Savannah
Memphis	Little Rock

Delivery Rules.—The futures contract usually specifies delivery during one of the next 12 calendar months. This means that the commodities

can be bought or sold on futures contracts as far as one year ahead. During the war the New York Cotton Exchange extended the trading period to 18 months ahead. In some instances trading is permissible only 6 to 8 months ahead.

It must be borne in mind, however, that each futures transaction is for one specific delivery month only. Contracts are generally designated according to their delivery months. Trading is conducted in May wheat, July cotton, September corn, or December hides.

Trading is normally concentrated in 4 or 6 active delivery months, while the other positions are inactive. Thus, the active trading months in grains are May, July, September, and December futures, while trading in cotton futures is active in the January, March, May, July, October, and December deliveries.

The seller has the entire delivery month during which to make delivery on his contract. This protects him against delays in transportation.

Delivery Points.—Actual deliveries on futures contracts are effected by transfer of **warehouse receipts.** In some cases exchange rules permit delivery of commodities in cars on track within the switching limits of specified cities. However, the contracts used by the various exchanges specify where the commodities to be delivered on contract shall be located. These locations—they range in number on various contracts from one to a substantial number—are called **delivery points.**

Organization and Functions of Commodity Exchanges

FORM OF ORGANIZATION.—Organized Commodity Exchanges in the United States are a direct outgrowth of the Boards of Trade and Chambers of Commerce which were formed to regulate trading in grain at large terminal points. The older ones were chartered by special acts of the legislature, such as the **Chicago Board of Trade** Incorporation Act of 1859. Newer ones are membership corporations, not operated for profit.

Purpose of Exchanges.—The preamble to the Rules and Regulations of The Board of Trade of the City of Chicago spells out the objects of the Board of Trade as follows:

> To maintain a Commercial Exchange;
> To promote uniformity in the customs and usages of merchants;
> To inculcate principles of justice and equity in trade;
> To facilitate the speedy adjustment of business disputes;
> To acquire and to disseminate valuable commercial and economic information;
> And, generally, to secure to its members the benefits of cooperation in the furtherance of their legitimate pursuits.

MEMBERSHIPS.—Membership in Commodity Exchanges is through qualification by election and purchase of an exchange seat. The value of these seats has fluctuated sharply. It is determined by the outlook for trading volume, which largely determines how profitable membership in an exchange will be, and the value of exchange assets.

Exchange seats are limited in number, so that they can be acquired only through transfer from another member. Thus New York Cotton

Exchange memberships total 450. Commodity Exchange, Inc., before World War II, was engaged in a program of reducing the number of exchange seats by buying them back with exchange funds. It now has 720 members.

MANAGEMENT.—The central government of commodity exchanges is vested in a president, one or several vice-presidents, a treasurer, and a governing body usually known as Board of Governors or Board of Managers. Officers and governors are elected annually. The administrative work is largely done by a salaried secretary of the exchange.

STANDING COMMITTEES.—A number of standing committees, though subject to final authority of the Board of Governors, exert great powers. The names and the work of some of these committees are as follows:

The Arbitration Committee adjusts differences among exchange members. Voluntary or compulsory arbitration of disputes between members plays an important role in commodity exchange practices. Prototype for voluntary arbitration is the Chicago Board of Trade whose rules state that, "The policy of the Association is to encourage, but not to compel the arbitration of disputes." Arbitrators possess wide judicial power including the right to subpoena members. Decisions of the arbitration committee are binding upon the parties and enforceable under the by-laws of the exchange by disciplinary action. Appeals against such decisions are allowed, in which case special committees appointed by the Board of Governors usually have the right to issue final decisions.

The Business Conduct Committee investigates alleged misconduct on the part of a member, on its own initiative or by direction of the Board of Governors. Strong business conduct committees are responsible for the fact that few abuses occur in commodity exchange practice. Membership discipline on these exchanges is very strict. When formal complaints are issued against a member, the **Supervisory Committee** assumes jurisdiction. If the Supervisory Committee finds against a defendant, the **Board of Governors** fixes penalties.

The Floor Committee has jurisdiction over business conduct on the floor of the Exchange and trading rules. It has the authority to decide disputes arising from bids offered or acceptances in regular trading on the spot.

The Quotations Committee is charged with the enforcement of quotation rules and the settlement on the floor of disputes over price quotations. It meets daily to establish official "bid and asked" quotations and nominal quotes for inactive trading months.

The Committee on Commissions prescribes and enforces rigidly minimum commission rate schedules. Splitting of commissions and discrimination between large or small customers are prohibited.

The Committee on Information and Statistics collects all data and news of significance to the operation of the exchange. Complete, correct, and fast assimilation of all news bearing on the supply and demand position of a commodity is of paramount importance in commodity trading.

The Grading and Warehousing Committee has the important duty of supervising the Inspection Bureau of the Exchange, which is in charge of grading and weighing commodities for certification. It approves and supervises warehouses licensed by the exchange for the storage of commodities which may be delivered on futures contracts.

RULES AND REGULATIONS.—All commodity exchanges have tightly drawn by-laws and rules which govern business procedures and the conduct of their members. These rules and regulations are strictly enforced. Upon their soundness depends the value of the services rendered by these exchanges.

CHIEF FUNCTIONS OF FUTURES EXCHANGES.—Futures or commodity exchanges provide a market place where members trade under established rules and regulations and where orders from buyers and sellers from every quarter of the globe are executed by member brokers. Some commodity exchanges maintain f.cilities for spot trading, but their primary purpose is to provide a market for future delivery contracts.

The chief functions of the commodity exchanges are twofold:

1. They provide a continuous market for the commodities traded.
2. They make possible protection of commodity positions, incurred in the regular course of business, against price fluctuations through offsetting positions in the futures markets. This price protection is called **hedging.**

These two functions of the futures markets are best described as their market function and their insurance function.

The Market Function.—Futures exchanges provide a market place and machinery where sales and purchases of a commodity can be made at any time.

Without the exchanges, there would be no **continuous market** in these commodities. Consequently, potential sellers or buyers would not, at all times, know exactly the price at which they can purchase or sell. Farmers or producers may never use the mechanism of the exchange to dispose of their output—although they can easily do so—yet the existence of the exchange assures their ability to sell when they want to, at prices that can be checked readily against prevailing exchange quotations.

Futures exchanges not only provide buyers and sellers with a continuous market—where orders from all parts of the country can be executed within a few minutes—but they make for more orderly markets in which price changes between transactions—with rare exceptions—are only fractional. There are no off-the-record dealings on these exchanges; all trades are made in full view at a trading ring by public outcry.

The Insurance Function.—The fact that usually a considerable period elapses between the production and consumption of a commodity involves serious price risks. During this period the commodity is owned by someone—this may be either the producer, a processor or handler, or the ultimate consumer. Whoever he is, the owner is confronted with the possibility of unforeseen price fluctuations that could cause severe losses.

If futures exchanges did not provide a mechanism for protection against such price risks, distribution costs would be materially higher.

Through the exchanges, positions in a cash commodity—either in the form of a commitment to deliver at a later date at a specified price or in the form of inventory—may be offset by positions in the futures market. Thus, somebody "long" in the cash market may offset this position by going "short" in the futures market, and vice versa.

The practice of buying or selling futures to counterbalance an existing position in the cash market, and thus avoid the risk of unforeseen price fluctuations, is called "hedging," which is discussed at length below.

Diffusion of Risks.—By far the most important role of futures exchanges is their diffusion of economic risks, which otherwise would have to be carried by relatively few people—producers, processors, or dealers. But futures markets can function only if buyers and sellers are standing by at all times to take over these risks. Since trade buyers and sellers may not be on hand at any given time, "outside participation" or speculation is also required.

Hedging alone—despite the fact that it may be done on both sides of the market—does not assure a functioning futures market. A two-way market requires also speculative participation. This need is clearly recognized by the exchanges and administrative agencies. Commodity exchange regulation is aimed at the prevention only of excessive speculation.

Free versus Controlled Markets.—Since the major function of commodity exchanges is protection against price risks, they are a feature of free trading in commodities. Where prices of commodities are fixed by law or by international agreement, the price insurance function of the futures market loses its importance.

Domestic or international price support measures do not necessarily doom trading in commodity futures, so long as rigid price fixing is avoided. Where such controls permit fluctuations between upper and lower price limits, futures markets still serve a useful purpose. Crop loan programs in this country and such international arrangements as the International Rubber Agreement—which limited the amount of crude rubber shipped from producing countries—did not halt futures trading, but trading volume contracted commensurate with the degree of interference.

Regulation of Commodity Exchanges

EARLY LEGISLATIVE MOVES.—Attempts to regulate commodity exchanges are almost as old as futures trading itself. Their main purpose has been the protection of the affected trades and the public against abuses. During the late 90's several attempts were made to outlaw futures trading altogether as mere "gambling." Charges of price manipulation led to numerous investigations of the exchanges and their practices. In 1892 prohibition of short selling in commodity markets came within an inch of becoming the law of the land through the so-called Hatch Bill. Germany, in 1896, actually outlawed short selling with the result that completely one-sided markets were created that could not function properly.

Following the turn of the century, attempts to prohibit futures trading were replaced by a trend toward government supervision.

The three basic commodity exchange laws in this country are:

1. The Cotton Futures Act of 1915.
2. The Grain Futures Act of 1922.
3. The Commodity Exchange Act of 1936.

The Cotton Futures Act.—The Cotton Futures Act grew out of the refusal of the New York Cotton Exchange to change its system of fixing differentials for various grades of cotton deliverable against futures contracts. The shortcomings of the "fixed difference" system used in earlier years had become apparent in 1906 when, due to extremely poor weather conditions, a scarcity of high quality cotton developed and, as a result, the spread between high and lower grades in the spot markets widened sharply.

The exchange's Revision Committee, which under exchange rules determined fixed differentials twice a year, failed to recognize these conditions, so that it became advantageous to deliver low grade cotton on futures contracts. Futures prices were thereby depressed, and the market lost its value as a medium for hedging. The Commissioner of Corporations suggested switching to a system of commercial differences, and when the exchange failed to do so the Cotton Futures Act made use of commercial difference mandatory. The Act also provides for the use of standards set by the Department of Agriculture, and establishes a system of inspection, grading, and labeling of bales under the supervision of officials of the Department.

The Grain Futures Act.—Principal objectives of the Grain Futures Act, passed in 1922, were:

1. To prevent misuse of grain futures exchanges which might result in "sudden and unreasonable fluctuations in prices" and in the cornering of grain.
2. To prevent dissemination of false or misleading reports concerning crop or market conditions.
3. To open the contract markets for producers by preventing the arbitrary exclusion of properly formed and conducted cooperative associations of producers engaged in the cash grain business.

To keep the market under observance, the Grain Futures Administration requires daily reports on open commitments in wheat, corn, or oats futures of 200,000 bushels or more.

The Commodity Exchange Act of 1936 is an amendment to the Grain Futures Act.

THE COMMODITY EXCHANGE ACT OF 1936.—The basic purpose of this Act is the protection of the public using the facilities of commodity futures exchanges. This purpose is to be accomplished:

1. By strict supervision of commodity futures exchanges dealing in agricultural commodities and all individuals, partnerships and corporations taking part in this business.
2. By prevention of unfair trading practices and market manipulation, as well as the elimination of "excessive speculation."
3. By segregation of customers' funds used for margining of commodity futures transactions.

Scope of Act.—Not all futures exchanges are subject to the Commodity Exchange Act. The Act only governs futures markets dealing in:

Wheat
Cotton
Rice
Corn
Oats
Barley
Rye
Flaxseed
Grain sorghums
Millfeeds
Butter
Eggs
Irish potatoes (Solanum tuberosum)
Wool tops
Fats and oils: including
  Lard
  Tallow
  Cottonseed oil
  Peanut oil
  Soybean oil
  All other fats and oils
Cottonseed meal
Cottonseed
Peanuts
Soybeans
Soybean meal

Of these commodities wool tops were brought under supervision in an amendment to the Act passed in 1938; oils and fats, soybeans, cottonseed meal, and soybean meal were brought under regulation through the Pace Amendment of 1940. No futures market exists in rice. Among leading futures exchanges the New York Coffee and Sugar Exchange, the New York Cocoa Exchange, and the New York Commodity Exchange do not fall under the Commodity Exchange Act.

Futures exchanges dealing in commodities subject to the Act must be authorized by the Secretary of Agriculture as "contract markets." There are currently 18 such contract markets in the country. They are:

LIST OF CONTRACT MARKETS UNDER C.E.A. SUPERVISION

Market	Commodities Traded
Chicago Board of Trade	Wheat, corn, oats, rye, cotton, soybeans, lard, cottonseed oil
Chicago Mercantile Exchange	Butter, eggs, potatoes
Chicago Open Board of Trade	Wheat, corn, oats, rye, soybeans
Duluth Board of Trade	Wheat
Kansas City Board of Trade	Wheat, corn, wheat bran, shorts
Los Angeles Grain Exchange	Barley
Memphis Merchants Exchange Clearing Assn.	Cottonseed meal, soybean meal
Milwaukee Grain and Stock Exchange	Wheat, corn, oats, rye
Minneapolis Chamber of Commerce	Wheat, corn, oats, rye, barley, flaxseed
New Orleans Cotton Exchange	Cotton, cottonseed oil
New York Cotton Exchange	Cotton
New York Mercantile Exchange	Butter, eggs
New York Produce Exchange	Cottonseed oil, soybean oil, tallow
Portland Grain Exchange	Wheat
St. Louis Merchants' Exchange	Wheat bran, shorts, middlings
San Francisco Grain Exchange	Barley*
Seattle Grain Exchange	Wheat
Wool Associates of the New York Cotton Exchange	Wool tops

* Last trade in barley at San Francisco was on December 8, 1939.

Constitutionality.—The constitutionality of the Commodity Exchange Act was challenged in several cases brought in Federal District Court.

[Moore v. Chicago Mercantile Exchange, 90 Fed. (2d) 735, and Board of Trade of Kansas City v. Milligan, 90 Fed. (2d) 855.] These cases were dismissed upon hearing in the United States District Courts. Petitions for certiorari direct to the United States Supreme Court were denied and, on appeal to the United States Circuit Courts of Appeal, decisions were rendered upholding the constitutionality of the Act. The Supreme Court on October 11, 1937 also refused to grant certiorari, thereby affirming by implication the decisions of the Circuit Courts of Appeal sustaining the validity of the Commodity Exchange Act.

Prevention of Manipulation.—To prevent manipulation and corners, the Commodity Exchange Act makes it unlawful to execute transactions in regulated commodities:

1. If such transaction is commonly known to the trade as a **wash sale, cross trade,** or **accommodation trade,** or if it is a fictitious sale;
2. If such transaction is commonly known to the trade as **privilege indemnity, bid, offer, put, call, advance guaranty,** or **decline guaranty,** or
3. If such transaction is used to cause any price to be reported, registered, or recorded which is not a true or bona fide price.

A Wash Sale.—The term is commonly used in commodity trading, and means a fictitious transaction made for the purpose of creating a false impression of trading volume or price activity.

Cross trades (or crossed orders) is a term signifying the practice of offsetting a customer's buying order with a corresponding selling order by a different customer without execution of these orders at the trading ring. One of the best known, though long outlawed, examples of this type of trading is the **bucket shop.**

Accommodation trades are arrangements between floor traders or clearing house members under which they act to offset equal positions on the short or long side of the market at an agreed price, with the understanding that such sale can be reversed at any time, thus restoring the two original market positions.

Privileges are contracts under which a purchaser may exercise, within a specified period, the right of entering into a futures contract with the seller of the privilege contract at a price named. Privileges are also known as "indemnities," "bids and offers," or "puts and calls."

Bucketing of orders to buy or sell futures contracts is prohibited under the Commodity Exchange Act. This refers to the filling of such orders by offset orders for other persons or by taking the other side of the trade without prior consent of a customer.

Trading in hand, or the offsetting of commodity orders against each other, is now regulated as follows: If a futures commission merchant has in hand simultaneously buying and selling orders at the market for different principals for a like quantity for future delivery in the same month, he must first offer these orders openly and competitively through public outcry in the trading pit or ring; failing of acceptance, he may then execute these orders by offset.

The main purpose of this provision is to prevent the matching of customers' orders in the offices of commission houses.

Other Unfair Trading Practices.—Other unfair trade practices explicity outlawed by the Act include the dissemination of false and mis-

leading crop and market information to influence prices, as well as cheating, fraud, and deceit in connection with the execution of customers' orders.

CURBS ON SPECULATION.—To prevent excessive speculation the Commodity Exchange Act provides [Section 4a(1)] that limits may be placed on the amount of trading which may be done by any person each day, as well as on the amount of open commitments which may be held by any one interest.

Different limits may be fixed for different commodities, markets, futures, or delivery months. Also, limits do not have to be the same for buying and selling operations. Spreading or straddling operations may be exempted from the trading limits. Bona fide hedging transactions are exempted from any limitation on sales and open commitments. Limits apply to futures commission merchants or floor brokers only to the extent that they are not made on behalf of or for the account of customers.

Trading limits may be imposed only by the Commodity Exchange Commission after due notice and opportunity for hearing. Thus far three orders have been issued under this provision of the Act, covering grains, generally, rye specifically, and cotton.

Prevention of Squeezes.—The prevention of "squeezes" or congestion in current delivery months is one of the most difficult problems of commodity exchange procedure and supervision.

There are two types of squeezes:

1. When a discrepancy develops between the amount of outstanding futures contracts and available supplies which can be delivered against such contracts, it is called a "natural squeeze." This is most apt to happen toward the end of the season when crops are short.
2. When a discrepancy between the volume of outstanding futures contracts and deliverable supplies is due to the fact that supplies are tightly held by a small number of trade interests or speculators, the squeeze is an artificial one, commonly called a "corner."

Cease-Trading Period.—The Commodity Exchange Act contains a special provision [section 5a(4)] designed to prevent excessive price fluctuations due to squeezes. Under this provision the Secretary of Agriculture may direct a contract market to "provide for a period, after trading and contracts of sale of any commodity for future delivery in a delivery month has ceased, during which contracts of sale of such commodity for future delivery in such month may be satisfied by the delivery of the actual cash commodity."

The purpose of this provision is to enable persons who sold futures contracts to ship the actual commodity for delivery on the contract from considerable distances to the delivery point after trading in the contract for that month has stopped. This will tend to make holders of long contracts considerably more willing to even up their positions before trading in a delivery month stops, unless they want to take delivery on the contract.

The period during which deliveries on futures contracts may be made after trading in a delivery month has stopped is called the "cease-trading" period.

The Secretary of Agriculture, by special order issued February 17, 1938, ordered contract markets dealing in wheat, corn, oats, barley, rye, and flaxseed futures to maintain a period of 7 business days during which contracts for future delivery in the current delivery month may be settled by delivery of the actual cash commodity after trading in such contracts has ceased.

HANDLING OF CUSTOMER'S FUNDS.—The Commodity Exchange Act requires strict segregation of customers' margin moneys. Futures commission merchants must treat such amounts as belonging to the customers, and may not use them in their own business or for extending credit to others.

On October 10, 1936, upon advice of the Solicitor of the United States Department of Agriculture, it was ruled that full compliance with these provisions of the Act requires segregation not only of customers' funds received to margin or guarantee trades but also of funds and equities accruing to customers as a result of payments received from the **Clearing House Association** of a contract market covering settlements to the market each day. On August 11, 1937, it was officially announced that the Commodity Exchange Authority would "view with disfavor all contracts between futures commission merchants and customers which purport to give a commission firm blanket authority to use customers' funds as it sees fit." There is no objection, however, to bona fide agreements whereby customers, trading in commodities not covered by the Act, authorize the transfer of funds from one account to another as needed to avoid margin calls.

ADMINISTRATION OF CONTROL.—Administration of the Commodity Exchange Act lies in the hands of the Commodity Exchange Authority in the United States Department of Agriculture, Production and Marketing Administration. (The original title was Commodity Exchange Administration.) The Authority is headed by the Act Administrator.

Organization.—There are three levels of authority under the Commodity Exchange Act. They are:

1. The Commodity Exchange Authority under the Act Administrator.
2. The Secretary of Agriculture.
3. The Commodity Exchange Commission, as the highest authority.

The Commission consists of the Secretary of Agriculture, the Secretary of Commerce, and the Attorney General.

Functions of the Secretary of Agriculture under the Act include:

1. Designation of contract markets.
2. Registration of commission merchants and floor brokers.
3. Promulgation of rules and regulations to accomplish purposes of the Act.
4. Fixing charges and fees for registration.
5. Notifying contract markets of any transactions harmful to best interests of producers and consumers.
6. Refusing to register violators of Act or regulations.
7. Requiring reports under the Act, inspecting books and records, designating time records to be kept.
8. Prescribing rules for investment of customers' funds.
9. Fixing "cease trading periods" where this is deemed necessary to prevent squeezes.

10. Fixing limits for the daily reporting of open futures commitments to the Commodity Exchange Authority.

Functions of the Commodity Exchange Commission under the Act include:

1. Establishing limits on trading and positions to prevent excessive speculation.
2. Suspending or revoking designation of exchanges as contract markets for violations of the Act or regulations.
3. Hearing appeals when the Secretary of Agriculture refuses to designate an exchange as a contract market.
4. Issuing cease and desist orders for Act violations.

On July 14, 1937, the Secretary of Agriculture published an extensive set of **Rules and Regulations** to facilitate application of the Commodity Exchange Act. These rules and regulations have been amended repeatedly, and are available in booklet form at the United States Department of Agriculture, Washington, D. C.

Registration.—Enforcement of the Commodity Exchange Act is based on:

1. Designation of Commodity Exchanges as "contract markets" by the Secretary of Agriculture upon application.
2. Registration of futures commission merchants and floor brokers by the Secretary of Agriculture.

It is unlawful for any person to solicit or accept orders for the purchase or sale of any commodity for future delivery unless he is registered with the Secretary of Agriculture as a futures commission merchant and his registration has not expired. These registrations have to be renewed every year.

Registrations may be suspended or revoked (after due notice and hearing) for violation of any provision of the Act or regulation issued by the Secretary of Agriculture. These require the keeping of proper books and records, which must be held open to inspection by representatives of the Department of Agriculture or the Department of Justice.

Reports on Holdings.—Supervision of regulated futures markets is facilitated by an elaborate system of daily reports to the Commodity Exchange Authority.

Each clearing member of a contract market must report daily the total of all open accounts "long" and "short" carried at the beginning and end of the business day, as well as the net position of all accounts open on his books and the daily volume and quantity of cash commodities delivered on or received on futures contracts. Such reports must be filed at the local office of the Commodity Exchange Authority not later than 30 minutes before the official opening of the market on the following business day.

In addition to these reports, daily reports are required of all persons holding or controlling open contracts of specified size. Every person who holds or controls open contracts in any one future of any regulated commodity on any one contract market which equal or exceed the amounts fixed by the Secretary of Agriculture for reporting purposes shall report these on the specified forms. Such reports are due daily, except that if on any day such person has no trades or transactions in any future previously reported and there has been no change in the open

contracts, the last report shall be considered as his report on open contracts in all intervening days.

Reporting Limits.—The following compilation shows the minimum open contracts which must be reported daily at this time by persons trading in regulated futures markets, together with forms to be used for each commodity:

Commodity	Form	Quantity
Grains	203*	200,000 bushels
Cotton	303	5,000 bales
Butter	403	25 carlots
Eggs	503	25 carlots
Potatoes	603	25 carlots
Millfeeds	703	1,000 tons
Wool tops	803	125,000 pounds
Fats	903	250,000 pounds
Oils	1003	300,000 pounds
Cottonseed meal	1103	1,100 tons
Soybean meal	1103	1,100 tons

* For each grain separately.

Each futures commission merchant and each member of a contract market who carries for another person accounts above these indicated limits must report them. This gives the Commodity Exchange Authority a double check against the customers' reports.

Special Calls.—Whenever in the judgment of the Act Administrator a danger of congestion exists in any delivery month, each member of a contract market and each futures commission merchant may be called upon to report all accounts carried by him which show open contracts in any designated delivery month equal to or in excess of the amount specified in the call. The above limits do not apply in such cases.

Penalties.—The Commodity Exchange Act has real "teeth" in its penalty provisions. Fines of up to $10,000, or imprisonment up to one year (or both) are provided for violation of the following provisions of the Act: failure of commission merchants or floor brokers to register; wilful errors in reporting contracts to the Secretary of Agriculture; attempts to operate outside contract markets or false representation as member of a contract market; violations of trading and position limits set by the Commodity Exchange Commission; attempts to manipulate exchange prices or to corner a commodity; or careless transmission of misleading or false market information in interstate commerce.

Failure or refusal of an exchange to comply with provisions of the Act is punishable with (1) suspension for a period up to 6 months, (2) revocation of its designation as a contract market, and (3) issuance of a "cease and desist" order. These actions on the part of the Commodity Exchange Commission require notice and hearing. Failure to comply with a cease and desist order is punishable by fine of $500 to $10,000, imprisonment of 6 months to a year, or both. Each day during which such order is ignored shall constitute a separate offense.

SELF-REGULATION OF EXCHANGES.—The Commodity Exchange Act has set the pattern for futures trading which is followed also by exchanges which are not subject to the Act because they deal in

"unregulated" commodities. Most provisions of the Act reflected practices enforced by exchange by-laws even before the Act was passed as desirable measures of self-regulation. Self-regulation seeks to prevent "any conduct detrimental to the best interest of the exchange or the welfare of the United States."

Under the by-laws of Commodity Exchange, Inc., for instance, exchange members may be suspended or expelled by the Board of Governors on any one of 9 different counts, including refusal to submit to and abide by arbitration decisions, misstatement of facts in advertisements, disreputable or fraudulent transactions, and insolvency.

Margin Rules.—One important matter left entirely to self-regulation by commodity exchanges is the margining of futures transactions.

The Commodity Exchange Act, while requiring segregation and separate handling of customers' margin moneys, does not now give the government the authority to fix margin requirements. In circumvention of the Commodity Exchange Act the Administration in March, 1946, used the Emergency Price Control Act of 1942 to force the cotton futures exchanges in New York, New Orleans, and Chicago to raise their margin requirements sharply. The Administration's argument was that stricter control of speculation in cotton futures was essential to carry out the mandate of the Price Control Act. Use of this device to fix margin requirements ended automatically when price controls were discontinued.

The basic margin rule, adopted voluntarily by all futures exchanges, is that initial margins on speculative accounts required from customers shall not be smaller than those fixed for clearing members of the exchanges. This rule was adopted by the Chicago Board of Trade in 1934 and by the New York Cotton Exchange in 1937, following an informal request of the Commodity Exchange Administration.

Where commodity exchanges permit the opening of trade accounts—as distinguished from speculative transactions—on credit without deposit of margins—the by-laws usually set maximum limits for the extension of such credit.

Association of Commodity Exchanges.—To further self-regulation, a group of eight leading commodity exchanges formed the "National Association of Futures Exchanges and Allied Trades, Inc." in August, 1944. This association is now defunct.

Mechanism of Futures Trading

TRADING FACILITIES.—Trading in commodity futures is carried out on trading **rings** at the various commodity exchanges. On the grain exchanges these are called **pits.** Usually there is a separate pit or ring for each commodity traded.

Blackboards, in full view of the trading ring, serve to register all transactions. Quotations are also distributed by ticker, similar to the stock ticker.

The trading floor is connected with commission house and dealers' offices by direct wires. This enables execution of buying or selling orders in a matter of minutes from all parts of the country covered by the net of commission house branch offices. Private wire systems connect virtually every sizable city in the United States with Chicago, New York and other futures trading centers.

HANDLING OF ORDERS.—Buying or selling orders for futures contracts—regardless of whether they are for trade accounts or speculators—are routed through **commission houses.** Most commission houses handling securities are equipped to handle commodity orders also. The larger commission houses are members of virtually all or at least the major commodity exchanges.

The actual execution of orders at the trading rings is handled by **floor brokers.** Their chief function is to act as brokers for other exchange members. They are brokers' brokers. Both commission brokers and floor brokers frequently trade for their own account, but exchanges prohibit members from acting as agent and principal in the same transaction.

Traders on commodity exchanges fall into two categories: **hedgers,** who use the futures markets to avoid speculative risks in their business resulting from price fluctuations, and **speculators,** who go into these markets to profit by price fluctuations.

Floor traders who seek to profit from daily price fluctuations by brief commitments are called **scalpers.** This activity is not restricted to exchange members, but nonmembers are hampered in such in-and-out trading by commission and clearing costs, as well as the fact that they are not in constant touch with ring activity.

One type of speculator in commodity trading is the **straddler** or **spreader.** Straddlers seek to capitalize on changes in the spread between quotations for different delivery months in a futures market, or between different futures markets dealing in the same commodity. They buy in one market or one specific delivery, while at the same time selling short an equal amount in another market or another specific delivery month. Sometimes spreads are tried between two commodities; such as wheat and corn; or cottonseed oil and lard. Such operations are based either on known seasonal developments or on the fact that "normal" price relationships in futures markets sometimes become temporarily distorted. (The term "straddler" is used in cotton trading; "spreader" in the grain trade.)

MARKET AND LIMIT ORDERS.—Orders to buy or sell commodity futures can be either "at the market" or at a price limit. Practice corresponds exactly with that used in securities trading.

SHORT SELLING.—There are no restrictions on short selling of commodity futures contracts other than the trading limits established for grains and cotton by the Commodity Exchange Authority, which apply to transactions on the long side of the market as well as on short sales. The Commodity Exchange Commission may establish different limits for longs and shorts. These limits are for speculative accounts only.

No limits whatsoever apply to trade accounts. Without unrestricted short selling in commodity futures, these markets could not be used for hedging purchases.

STOP-LOSS ORDERS.—Widely used in futures markets for purposes of price protection is the "stop-loss" order. It reads something like this: "Sell 10 December wheat contracts at $1.50, stop." This type of order is used when a trader wants to protect book profits on long

positions against sudden market breaks, or where he wants to limit his loss when he enters a futures market. As long as the market is above the "stop," such an order remains a limited order. However, as soon as the stop price is reached or passed, the order becomes a market order, to be executed at the best price obtainable. There is thus no guaranty that the order will be executed at the stop point. Particularly in thin markets, fluctuations between transactions may be so wide that the market goes right through the stop point. Furthermore, it occurs frequently that in a declining market a large number of stop-loss orders become effective at the same point, which will aggravate a declining price trend.

EXECUTION OF COMMODITY ORDERS.—Quotations on futures exchanges are determined by open outcry. On most exchanges trading is open by a special "call." This is a means of establishing opening prices for all delivery months in an orderly manner, instead of plunging at once into general trading. Each trading month is called out in succession and offers to buy and sell are made for that month only. Sales may or may not occur at the opening call. When the call is finished, regular trading begins. The call procedure usually is repeated at least twice, and in some instances three times, during each trading session.

Futures markets quotations are reported daily in the financial press and in other large newspapers. Daily price reports show opening and closing prices, as well as the daily high and low for each delivery month. In addition to price quotations, daily information is given on the volume of trading and on open commitments. The latter figures are published a day late.

The cotton futures price table as published in the New York Journal of Commerce is illustrated in Fig. 1.

THE DAY'S COTTON FUTURES QUOTATIONS.—The following are the opening, closing, highest and lowest of the day, and the previous day's closing:

	Open	High	Low	Close.	Previous Close.	Life of Contract High	Life of Contract Low
July	36.65	36.91	36.54	36.70- ——	36.63- ——	37.58	23.61
Aug.	——	——	——	*35.10- ——	*35.01- ——	——	——
Sept.	——	——	——	*33.50- ——	*33.39- ——	——	——
Oct.	31.81	32.08	31.72	31.90- ——	31.78-31.79	34.90	23.09
Nov.	——	——	——	*31.38- ——	*31.27- ——	——	——
Dec.	30.79	31.04	30.72	30.87-30.88	30.75-30.78	34.50	23.00
1948—							
Jan.	——	——	——	*30.41- ——	*30.30- ——	29.00	28.00
Feb.	——	——	——	*30.31- ——	*30.21- ——	——	——
Mar.	30.15	30.42	30.07	*30.22- ——	30.12- ——	33.21	22.50
Apr.	——	——	——	*29.98- ——	*29.87- ——	——	——
May	26.69	29.92	29.57	29.73- ——	*29.62- ——	29.90	23.99
June	——	——	——	*29.25- ——	*29.19- ——	——	——
July	28.82	29.00	28.71	*28.78- ——	*28.77- ——	28.98	26.35
Aug.	——	——	——	*28.07- ——	*28.08- ——	——	——
Sept.	——	——	——	*27.36- ——	*27.40- ——	——	——
Oct.	——	27.00	26.65	*26.65- ——	*26.72- ——	27.00	24.70

* nominal

Market closed steady.

FIG. 1. Quotations on Cotton Futures as Published in a Trade Journal

All trades at the ring must be made at the market. An offer to sell at the ring is open to the first buyer who meets the price. A bid must be closed with the first broker who offers a lot at the same price.

The lowest offer and the highest bid constitute the price limit for the market. A seller cannot offer his lot "all or none"; but if there are simultaneous acceptances, one for all and the other for part of the lot, the former gets preference.

Trading hours are rigidly regulated, but vary somewhat among exchanges. They are as follows:

	Daily	Saturdays
Chicago Board of Trade	9:30 to 1:15	to 12:00
New York Cotton Exchange	10:00 to 3:00	to 12:00
Wool Tops	10:20 to 2:50	to 11:50
New York Coffee and Sugar Exchange:		
Coffee	10:30 to 2:50*	
Sugar	10:00 to 2:55*	
New York Cocoa Exchange	10:00 to 3:00	to 12:00
Commodity Exchange, Inc.:		
Hides	10:10 to 3:00	to 12:00
Rubber	10:00 to 2:55	to 11:55
Copper	10:10 to 3:00	to 12:00
Lead	10:20 to 2:40	to 11:40
New York Produce Exchange:		
Cottonseed oil	10:50 to 2:45	Closed
Pepper	10:45 to 2:30	Closed
Chicago Mercantile Exchange:		
Butter	9:20 to 12:30	to 11:00
Eggs	9:20 to 12:00	to 11:00

* Closed Saturdays.

No trades may be made before or after trading hours. All orders unexecuted at the closing gong must await the opening of the exchange on the following business day.

Trading hours are relatively short, for concentration of trading within a relatively brief but active period better reflects demand and supply than dispersion orders over a longer part of the day. It is also felt that shorter trading periods discourage manipulation.

CONTRACT UNITS.—Trading in futures is done on the basis of specified contract units or multiples thereof. Thus the standard grain contract is for 5,000 bushels and the standard (New York) cotton contract for 100 bales. A complete listing of the contract units used by the various exchanges is given in the table on trading data, Fig. 2.

JOB LOT TRADING.—A few futures markets have facilities for trading in job lots, similar to trading in odd lots of securities. Job lot sizes also are fixed by exchange rules. Thus, the Chicago Board of Trade permits job lot sales in lots of 1,000 bushels in all grains, with the exception of oats and barley which may be traded in lots of 2,000 bushels. Before World War II job lot trading at the Chicago Board of Trade accounted for about 10% of the total trading volume.

Prices for job lots are quoted ⅛¢ per bushel above and below the market for purchases and sales respectively.

Commodity	Name of Exchange	Contract Unit	Minimum Fluctuations		Daily Fluctuation Limit	
			In cents per pound	In $ per contract	Above or below previous close	Maximum range
Barley	Minneapolis Chamber of Commerce	§ 5,000 bus.	1/8	6.25	10¢	20¢
"	Chicago Board of Trade	5,000 bus.	1/8	6.25	10¢	20¢
Butter	Chicago Mercantile Exchange	19,200 lbs. (300 tubs)	5/100	9.60	3¢	3¢
Cocoa beans	New York Cocoa Exchange	30,000 lbs.	1/100	3.00	1¢	1¢
Coffee	New York Coffee and Sugar Exchange	32,500 lbs. (250 bags)	1/100	3.25	1½¢	1½¢
Copper	Commodity Exchange New York	56,000 lbs. (25 tons)	1/100	5.60	1½¢	3¢
Corn	Chicago Board of Trade	5,000 bus.	1/8	6.25	8¢	16¢
"	Kansas City Board of Trade	5,000 bus.	1/8	6.25	8¢	16¢
Cotton	New York Cotton Exchange	50,000 lbs. (100 bales)	1/100	5.00	2¢	2¢
"	New Orleans Cotton Exchange	50,000 lbs. (100 bales)	1/100	5.00	2¢	2¢
"	New Orleans Cotton Exchange	25,000 lbs. (50 bales)	1/100	2.50	2¢	2¢
"	Chicago Board of Trade	25,000 lbs. (50 bales)	1/100	2.50	1¢	2¢
Cottonseed meal	Memphis Merchants Exchange	200,000 lbs. (100 tons)	5¢*	5.00	$3*	$6*
Cottonseed oil	New York Produce Exchange	60,000 lbs.	1/100	6.00	2¢	2¢
" "	New Orleans Cotton Exchange	30,000 lbs.	1/100	3.00	1¢	1¢
Eggs	Chicago Mercantile Exchange	18,000 doz. (600 cases)	5/100	9.00	2¢	4¢
Flaxseed	Minneapolis Chamber of Commerce	§ 1,000 bus.	1/8	1.25	10¢	20¢
Hides	Commodity Exchange New York	40,000 lbs.	1/100	4.00	2¢	4¢
Lard	Chicago Board of Trade	50,000 lbs. (136 tierces)	2½†	12.50	2¢	4¢
Lead	Commodity Exchange New York	60,000 lbs.	1/100	6.00	¾¢	1½¢
Oats	Chicago Board of Trade	5,000 bus.	1/8	6.25	6¢	12¢
"	Minneapolis Chamber of Commerce	1,000 bus.	1/8	1.25	6¢	12¢
Onions	Chicago Mercantile Exchange	40,000 lbs.	1‡	8.00	no limit	no limit
Pepper (black)	New York Produce Exchange	33,600 lbs. (15 tons)	1/100	3.36	2¢	2¢
Potatoes	Chicago Mercantile Exchange	45,000 lbs. (450 bags)	1†	4.50	25¢†	50¢

*Per short ton. †Per 100 lbs. ‡Per sack. §Also trading in "job lots."

Commodity	Name of Exchange	Contract Unit	Minimum Fluctuations		Daily Fluctuation Limit	
			In cents per pound	In $ per contract	Above or below previous close	Maximum range
Rubber, crude	Commodity Exchange New York	22,400 lbs. (10 tons)	1/100	2.24	2¢	4¢
Rye	Chicago Board of Trade	5,000 bus.	1/8	6.25	10¢	20¢
"	Minneapolis Chamber of Commerce	§ 5,000 bus.	1/8	6.25	10¢	20¢
Soybeans	Chicago Board of Trade	§ 5,000 bus.	1/8	6.25	8¢	16¢
Soybean oil	New York Produce Exchange	60,000 lbs.	1/100	6.00	1¢	1¢
Soybean meal	Memphis Merchants Exchange	200,000 lbs. (100 tons)	5¢*	5.00	$3*	$6*
Sugar, raw #5	New York Coffee and Sugar Exchange	112,000 lbs. (50 tons)	1/100	11.20	1/4¢	1/4¢
" " #4 (World)	New York Coffee and Sugar Exchange	112,000 lbs. (50 tons)	1/200	5.60	1/4¢	1/4¢
Tin	Commodity Exchange New York	11,200 lbs. (5 tons)	2½†	2.80	5¢	10¢
Wheat	Chicago Board of Trade	5,000 bus.	1/8	6.25	10¢	20¢
"	Kansas City Board of Trade	5,000 bus.	1/8	6.25	10¢	20¢
"	Minneapolis Chamber of Commerce	§ 5,000 bus.	1/8	6.25	10¢	20¢
" (Durum)	Duluth Board of Trade	1,000 bus.	1/8	1.25	10¢	20¢
Wool tops	Wool Associates of N. Y. Cotton Exchange	5,000 lbs.	10/100	5.00	10¢	10¢
Wool	Wool Associates of N. Y. Cotton Exchange	6,000 lbs.	10/100	6.00	10¢	10¢
Zinc	Commodity Exchange New York	60,000 lbs.	1/100	6.00	3/4¢	1½¢

*Per short ton. †Per 100 lbs. ‡Per sack. §Also trading in "job lots."

FIG. 2. Data on Trading in Futures Contracts

Trading in cotton futures at the New Orleans Cotton Exchange is in 50-bale lots, but this is the basic contract unit at that exchange rather than a special job lot.

PRICE FLUCTUATIONS.—In market operations price fluctuations are governed in part by regulations to prevent excesses of a manipulative nature.

Minimum Fluctuations.—To fulfill their function as sensitive market barometers, quotations on futures market are permitted to fluctuate by very small fractions under exchange by-laws. These are known as "minimum fluctuations." Grains fluctuate by eighths of a cent per bushel, or only $6.25 on a full 5,000-bushel contract. Rubber is quoted at variations of $\frac{1}{10}$¢ per pound and cotton, coffee, sugar, cocoa, and cottonseed oil futures move up and down in fractions of $\frac{1}{100}$¢ per pound. A complete listing of minimum fluctuations is contained in the table in Fig. 2.

Daily Fluctuation Limits.—To curb excessive speculation nearly all futures exchanges limit price changes permitted to occur during a single trading session. The Chicago Board of Trade limits the daily advance or decline in wheat futures to 10¢ per bushel. Once the price hits the permissible limit, prices are quoted bid or offered at the limit, and orders can be executed only if the price falls within the daily limit.

Most exchanges figure the daily fluctuation limit up and down from the previous closing price. The possible daily **maximum range** is thus double the limit, or 20¢ in the case of wheat. In some instances, however, the maximum range is the amount of fluctuation either above or below the previous close.

Daily fluctuation limits are not uniformly approved in the trades. Critics say that

1. Such limits immobilize futures markets at times; and therefore
2. Jeopardize the hedging function because it may become impossible at times to place or lift hedges.

This is aggravated where a succession of limit advances or declines occurs.

TRADING AND POSITION LIMITS.—The most far-reaching restrictions on futures trading are the limits on the volume of daily trading permitted each person and the amount of open commitments which may be held by nontrade members. Several commodity exchanges in the past have from time to time imposed such limitations where they were believed necessary in the interest of the exchange and the public. The best known example of this type of voluntary restriction was the so-called "gentlemen's agreement" between the Chicago Board of Trade and the Administration in the late 30's under which speculative holdings were restricted to an amount of 5,000,000 bushels.

Such voluntary restrictions were not believed sufficient by the Commodity Exchange Administration, however. The Commodity Exchange Act gives the Commodity Exchange Commission authority to fix daily trading and position limits, and the Commission has issued 3 orders fixing such limits for grains and cotton.

The 3 orders thus far issued under this provision of the Commodity Exchange Act are as follows:

1. **Grains.**—Setting position and daily trading limits in wheat, corn, oats, barley, and flaxseed the Commission ordered December 22, 1938:

Position Limits.—(a) The limit on the maximum net long or net short position which any one person may hold or control in any one grain or any one contract market is: 2,000,000 bushels in any one future or in all futures combined.

(b) To the extent that the net position held or controlled by any one person in all futures combined in any one grain or any one contract market is shown to represent spreading in the same grain between markets, the limit on net position in all futures combined may be exceeded on such contract market but in no case shall the excess result in a net position of more than 3,000,000 bushels in all futures combined nor more than 2,000,000 bushels in any one future.

Daily Trading Limits.—(a) The limit on the maximum amount which any one person may buy and on the maximum amount which any one person may sell of any one grain on any one contract market during any one business day is 2,000,000 bushels in any one future or in all futures combined.

(b) For spreading operations, including the closing of spreads, in the same grain between markets this limit may be exceeded but in no case shall the excess result in purchases of more than 3,000,000 bushels or sales of more than 3,000,000 bushels and in no event shall such person's total purchases or sales during any one business day in any one future exceed 2,000,000 bushels.

Hedging Transactions.—The limits on position and daily trading do not apply to bona fide hedging transactions.

2. **Rye.**—Setting limits in rye, the Commission ordered on November 23, 1945, a reduction of the daily trading and net position limits on speculative transactions from 2,000,000 to 500,000 bushels.

The 500,000-bushel rye limit applies both to maximum net long or short positions which any person may hold or control in any one rye future or in all rye futures combined, and to purchases or sales by any one person during one business day. The limits apply to all speculative trading, including spreading operations. They do not apply to bona fide hedging transactions.

3. **Cotton.**—In the matter of limits on position and daily trading in cotton, the Commission ordered on April 2, 1947:

Position Limit.—The limit on the maximum net long or net short position which any one person may hold or control in cotton in any one contract market is 30,000 bales.

Daily Trading Limit.—The limit on the maximum amount of cotton which any person may buy and on the maximum amount which any person may sell on any one contract market during any one business day is 30,000 bales in any one future.

Bona Fide Hedging; Straddles.—The position and daily trading limits do not apply to bona fide hedging transactions nor, except during the delivery months, to straddles between cotton futures or markets including the closing of straddles.

MARGIN PRACTICES.—The role of margins in commodity futures trading differs from that in the security markets. While buying and selling of securities on organized stock exchanges may be for cash or on margin, trading in commodity futures on organized exchanges is

never on a cash basis. Margins in security accounts constitute part payment for securities purchased. But margins in futures trading only bind seller and buyer to a contract which actually will not be consummated until a later date. For this reason, commodity margins always have been lower than security margins.

There are two classes of commodity margins:

1. The margins which clearing house members must pay into their clearing house accounts to safeguard fulfillment of their potential financial obligations.
2. The margins which commission house merchants require from their customers.

Customers' margins usually are moderately higher than clearing house margins, averaging about 10% of the purchase value of a futures contract, although they are not formally based on percentages of contract value. They frequently are increased in times of erratic price movements in a futures market. A call for additional margin is usually issued when the actual margin has been reduced by a change in price to 75% of the original requirement. When price movements are erratic margin requirements usually are raised by the Clearing House Associations. The cotton exchanges now have margins directly tied to fluctuations in the price. In the case of grains, changes are ordered from time to time as conditions warrant.

Minimum margin requirements usually are higher for speculative accounts than for hedging or spreading operations. On grain hedging transactions the initial margin is the clearing house requirement as a minimum. No Chicago Board of Trade member may carry for a customer hedging or spreading transactions in grain when the customer's account, figured to the market, would result in a deficit.

EXTENSION OF CREDIT.—Some exchanges permit the extension of credit—instead of initial margins—in the case of hedge positions for trade accounts, as contrasted with speculative transactions. But the trend has been away from this practice.

COMMISSION RATES.—All commodity exchanges have rules fixing minimum commission rates to prevent unfair competition between commission houses in the solicitation of business. Splitting of commission is prohibited.

Commodity futures commissions usually are expressed in terms of the full commission for a "round-turn" transaction, consisting of a purchase and subsequent sale of a contract, or vice versa.

Commission rates are much lower for exchange members than for nonmembers. Typical nonmember rates follow:

ROUND-TURN COMMISSION RATE

		Members	Nonmembers
Wheat	Regardless of price	$ 7.50	$15.00
Cotton	When price is below 30¢	17.50	35.00
	An additional $5 for nonmembers ($2.50 for members) for each 5¢ or portion of 5¢ the price is above 30¢		
Rubber	Regardless of price	20.00	40.00

Commission rates on commodity futures are considerably lower than comparative costs in security tradings. To take a typical illustration:

BOUGHT—5,000 bushels May Wheat at $1.60.....	$8,000.00	
SOLD—5,000 bushels May Wheat at $1.70.....	8,500.00	
TOTAL CHARGE is the round-turn commission for a nonmember of		$15.00
BOUGHT—100 shares U. S. STEEL at $60.00.....	6,000.00	
BUYING COMMISSION		$27.50
SOLD—100 shares U. S. STEEL at $70.00.....	7,000.00	
TAX—(State—$4.00; Federal—$6.00)		10.00
REGISTRATION FEE		.14
SELLING COMMISSION		30.00
TOTAL ROUND-TURN COSTS TO HANDLE THIS STOCK.....		$67.64

LIQUIDATION OF FUTURES CONTRACTS.—Futures contracts can be liquidated in three ways: through delivery of the actual commodity; through offset—sale or purchase—in the futures market; or, in cases of emergency, through settlement by order of the affected commodity exchange.

LIQUIDATION BY DELIVERIES ON CONTRACT.—Although only a small proportion of futures contracts are settled by actual delivery of commodities, it is important to remember that legally every buyer of a futures contract obligates himself to accept and pay in full for the commodity specified in the contract if he holds his contract until maturity.

Similarly, the seller is under obligation to deliver and receive payment for a stipulated amount of the commodity. Through orders given through their respective brokers, the traders on both sides of the transaction are under contract to make or take delivery of the physical commodity unless sometime prior to the maturity of that contract their obligations are cancelled out.

Rules and regulations on deliveries of actual commodities against futures contracts are very rigid.

Seller's Options.—While futures contracts restrict deliveries to the delivery month specified in the contract, the seller has two important options:

1. He can choose the day during the delivery months on which he wants to make delivery on his contract.
2. It is his privilege to determine which of the deliverable grades he wants to deliver.

The exchange rules require that a seller declare his intention to deliver one or several days ahead of time. Of particular importance in commodity trading is the day on which intentions to deliver on a contract may first be declared. This day is called the "first notice day."

First Notice Day.—This day marks the period for the final liquidation of a maturing futures contract. Usually it is preceded by a considerable amount of contract liquidation on the part of longs or shorts who do not intend to make or take delivery on their contracts. The intention to deliver on a futures contract is signified by the issuance of a "delivery notice" or "transferable notice."

Trading in a futures contract stops a specified number of days before the end of the delivery month, to give sellers some additional time to make deliveries before the end of the month.

The last day of trading in a maturing contract is called the **expiration day** of the contract, or simply the "last trading day." The period during which deliveries may still be made while trading in the maturing future has stopped is called the **cease trading period.** In grains, this is 7 business days by special order of the Commodity Exchange Authority. Intentions to deliver must be declared 1 day in advance of actual delivery.

Cotton exchanges require the issuance of delivery notices 5 days ahead of intended delivery, and set the last date for delivery at 7 days before the end of the delivery month. The practical effect of this is to stop trading in a delivery month at least 12 business days before the end of the month.

Most other futures markets permit trading in the maturing contract up to a day or two previous to the end of the delivery month, and require issuance of delivery notices only a day ahead of the date of intended delivery.

Delivery Notices.—The delivery notice informs the buyer actual delivery is planned and specifies the grade of the commodity which the seller—in accordance with the exchange regulations on deliverable grades—intends to deliver.

Fig. 3 is the form of delivery notice used by the Chicago Board of Trade.

Deliveries on futures contracts must be made at specified delivery points out of stocks in warehouses officially licensed by the exchange. Furthermore, the contract requires that the grade and weight of the commodity be officially determined by a licensed inspector. In some instances inspections are made under direction of federal or state governments; in others the exchanges themselves provide the facilities. Deliveries are facilitated through transfer of warehouse receipts from seller to buyer.

Deliverable Grades.—Intimate knowledge of grades which may be delivered against a futures contract, and the differentials applicable in case of delivery, is of paramount importance for trade or industrial firms intending to make use of a futures market.

Practices of the exchanges vary greatly. One extreme is the **rubber** futures contract which is based on a single deliverable grade—No. 1 standard ribbed smoked sheets. The two commodities with the most complex system of deliverable grades are cotton and hides.

The **New York Cotton Futures Contract** is based on middling $15/16$" cotton. As revised August 1, 1938, the main features of the New York cotton contract are as follows:

1. The base contract is 15/16" instead of ⅞" as previously.
   a. Staples of 31/32" and 1" are tenderable at 75% of the commercial premium over 15/16".
   b. Staples of 29/32" and ⅞" are tenderable at **full commercial difference** under 15/16".
2. The following grades may be tendered on futures contracts:
   a. White cotton—Good Middling, Strict Good Middling, Middling, Strict Low Middling, and Low Middling.

b. Spotted cotton—Good Middling, Strict Middling, and Middling Spotted, except that Middling Spotted shall be tenderable only when and if the Agricultural Marketing Service establishes a satisfactory type for Middling Spotted.

Note—Cotton reduced in grade for preparation, or in staple for character, or in value for any reason shall not be tenderable.

3. Non-rain-grown cotton is tenderable only in grades of Middling and above, and in staples of 1 1/32" or longer.
4. Standard-density and high-density compressed cotton shall be received on contract on the same basis.
5. Certified cotton remaining in stores is penalized 15¢ per bale per month, beginning with the eleventh month.
6. The receiver of a transferable notice is given 1 hour in which to pass the notice or accept tender.

This notice is deliverable on grain contracts in accordance with the Rules of The Board of Trade of the City of Chicago.

No. .....

DELIVERY NOTICE
OFFICE OF

.....

.....

Chicago ..... 19....

.....

We have on hand ready for delivery the following described Warehouse Receipts, or B/L receipts for carlots, and hereby make tender to you of the same, in fulfillment of contract of sale to you of ..... bushels.

CONTRACT ..... at .....

.....

Date Warehouse Receipt or Inspection	Warehouse in or Ordered to	No. of Warehouse Receipt of Car	Initial	Railroad	Date Ordered	Grade	Quantity		Storage Rate	Amount
							Bu.	Lbs.		

E. & O. E.

.....

Per .....

FIG. 3. Delivery Notice Used by Chicago Board of Trade

A completely **new hide futures contract** was introduced in March, 1952. The contract is no longer based on Light Native Cow Hides, with premiums and discounts for other grades of hides. Instead it is based on the average weight of hides.

The contract basis is Domestic Standard Packer Native Cow and/or Steer Hides, Standard No. 1 Selection, average weight 52-53.99 pounds, with additions or deductions for other classes, selections, descriptions and characteristics and with adjustments for variation in average weight, seasonal period of take-off and discount for quality (if below Standard), and adjustments for other factors as provided in the By-Laws, Rules, and Regulations of the Exchange.

The delivery of **foreign hides** against contract remains on a premium and discount basis according to grades. The basic grade is standard steers of a weight of 22 kg. and up (max. avg. 27 kg.). For Domestic Hides there shall be a fixed premium of 1% per pound for each pound or fraction thereof below the average weight of 52 pounds with a maximum premium of 12% for all hides averaging 40 pounds or less; and there shall be a fixed discount of 1% per pound to apply for each pound or fraction thereof above 53.99 pounds average.

The premiums and discounts herein provided shall become effective and applicable by requiring more or less weight in the lot to be delivered, and not by adjustment of the price to be paid; thus in the case of premium hides the actual net weight of the lot will be proportionately lower than the contract unit and in the case of discount hides the actual net weight of the lot will be proportionately higher.

Since the quality of hides varies with the months they have been taken off the animals, the contract provides special allowances to the buyer for hides which have been taken off during months other than the basis take-off.

	Domestic Hides	Foreign Hides
January	6%	none
February	6%	none
March	6%	1%
April	4%	3%
May	3%	4%
June	1%	5%
July	none	5%
August	none	5%
September	none	4%
October	1%	4%
November	3%	2%
December	4%	none

In the case of domestic hides the percentage of premium or discount for variation in average weight when combined with the percentage of discount, if any, for seasonal period of take-off will result in a net percentage of premium or discount. The net percentage figure applicable to the lot shall be indicated on the Hide Certificate.

Settlement between the parties to a delivery shall be made on the basis of the adjusted settlement weight which is arrived at by adding to or deducting from the actual net weight as certified by the Inspection Bureau the applicable net premium or discount percentage thereof. Such adjusted settlement weight must be within a contract unit of 40,000 pounds (2½% more or less).

Exemplifying practice in the grain futures market, deliverable grades on the Chicago Board of Trade **Wheat** contract are as follows:

No. 1 Dark Hard Winter Wheat	At 1½¢ per bushel over contract price
No. 1 Dark Northern Spring Wheat Heavy	At 1¢ per bushel over contract price
No. 2 Dark Hard Winter Wheat	At ½¢ per bushel over contract price
No. 1 Hard Winter Wheat No. 2 Hard Winter Wheat No. 1 Yellow Hard Winter Wheat No. 2 Yellow Hard Winter Wheat No. 1 Red Winter Wheat No. 2 Red Winter Wheat No. 1 Northern Spring Wheat No. 1 Heavy Northern Spring Wheat	At contract price

These normal differentials were temporarily set aside during World War II because of O.P.A. ceiling restrictions.

Notice Procedure.—Delivery notices are handled through the clearing house of each commodity exchange. The seller delivers his notice to the clearing house; then it is up to the clearing house to deliver it to someone who is long a contract.

Methods used by various clearing houses to determine the buyer to whom a notice should be sent vary, but a notice is deemed accepted by a buyer unless it is passed on to a different buyer within a certain time limit. This limit is sometimes as little as 20 minutes after receipt of the notice. Where notices are passed on in such a way it is said that they are "circulating," until "stopped" by someone. The readiness with which delivery notices are stopped by traders indicates the technical condition of a futures market.

LIQUIDATION THROUGH OFFSET.—Normally 98% to 99% of all outstanding contracts are liquidated through an offsetting transaction on the futures market rather than through delivery.

If a trader in January buys one hide futures contract calling for the delivery of 40,000 pounds of hides during the month of June and if some time between January and June he gives an order to sell one hide futures contract, the later sale will offset his original purchase. As a result, his contractual obligation to accept delivery and pay for 40,000 pounds of hides is nullified.

The possibility of liquidating futures contracts through offset is one prerequisite for the use of futures markets for hedging purposes.

A futures market fulfills its function best if the percentage of deliveries on contract is virtually nil. A sharp increase in deliveries—preceded by an increase in certificated stocks in licensed warehouses which may be used for such deliveries—usually indicates that the futures contract is not functioning smoothly. The suspicion in such instances is that the exchange differentials for deliverable grades are no longer in line with commercial differences, so that sellers are better off to make deliveries.

Switching.—Liquidation of futures contracts through offset can be effected either through outright liquidation of a position or through switching from one delivery month into a later one. A switching oper-

ation consists of two separate transactions: the sale of a nearby delivery and the simultaneous purchase of a deferred delivery; or vice versa. Switching plays an important role in commodity trading. It is used to maintain a position in the futures market either for trade purposes (hedging) or for speculative reasons.

Commission rates for switches are the same as for a regular **round-turn operation,** consisting of a purchase and subsequent sale or vice versa.

LIQUIDATION THROUGH SETTLEMENT.—The by-laws of all futures exchanges authorize the exchange to order settlement of futures contracts at a specified price, where such action is held necessary in the best interests of the trade. Use of this authority is restricted to emergencies, particularly an extreme price squeeze on shorts due to an acute shortage of spot supplies. Exchanges are reluctant to make use of this authority, for it contradicts the principle of free and open markets.

Where a severe shortage of deliverable spot supplies is threatened, commodity exchanges occasionally order trading in a delivery month restricted to the liquidation of outstanding contracts several weeks or even months ahead of the formal expiration date of the contract. If liquidation at a settlement price becomes necessary, great care must be exercised by the exchanges to set a fair price which does not favor unduly longs or shorts.

Clearing House Functions

NEED FOR CENTRAL CLEARING.—Modern commodity exchanges could not function properly without a streamlined mechanism for clearing futures transactions. Clearing organizations play an even more important role in commodity trading than they do in securities trading, because not only money differences but also the contracts themselves are cleared centrally.

As has been shown in the preceding discussion, the bulk of all transactions in futures contracts is liquidated through offsetting transactions rather than through actual delivery of the commodity. This, as the Supreme Court held in the famous Christie case (1905), accords with the legal nature of the futures contract. It would not be feasible to carry all futures contracts bought or sold on the books of exchange members until maturity, and then to settle them through circulation of transferable notices. Such a system would be extremely burdensome, and would unnecessarily strain the financial reserves of commission merchants and traders alike, as all open commitments then would have to remain fully margined.

Transactions in commodity futures are made between members of the exchanges. Since the number of commission houses is relatively small, they trade back and forth among themselves. Market positions which offset each other are thereby built up each day. Instead of carrying such offsetting positions on their books until maturity, commission houses turn to the clearing house to match up trades of the same character and clear them from the records of the brokers who have handled them.

EVOLUTION OF CLEARING METHODS.—The search for appropriate methods for clearing commodity futures transactions is as old as trading in futures contracts itself. Early forms were the **direct settlement** or **"ring settlement."** Under this system brokers, involved in either buying and selling transactions, formed a "ring" to close out their respective positions. This system was slow at best, as it involved considerable scurrying around from office to office to establish a complete ring which could function to close up a series of trades. Where rings could not be formed, contracts were frequently settled by transfer through substitution of one principal for another. Where this, too, could not be accomplished, contracts had to be carried along until maturity and then settled by actual delivery, or at least through circulation of transferable notices.

Attempts to streamline these settlement procedures led step by step to the evolution of the modern clearing house system. Members of the Chicago Board of Trade formed, in 1884, a clearing system for the purpose of handling money balances growing out of futures trades. This was facilitated through the use of a daily "settlement price."

The **settlement price** in commodity clearing house procedure is a price set by a commodity exchange official to which all trades are adjusted at the conclusion of each day's trading. Usually it is the closing price or the nearest even price when the market closes. The settlement price has nothing to do with the actual trading on the exchange; it is merely an internal mechanism used in determining credit and debit balances in interbroker relations.

The first complete clearing system was set up by the Minneapolis Chamber of Commerce in 1891. The Minneapolis clearing system became the pattern for all future exchanges although, in the course of time, a number of important improvements were developed.

THE MODERN CLEARING HOUSE.—Every commodity exchange now works through a clearing association. This is usually a corporation separate from the exchange and independent of it. A typical example is the **New York Cotton Exchange Clearing Association, Inc.**

Membership in clearing associations or corporations is restricted to members of the respective commodity exchanges, but not all exchange members are clearing house members. Actually only larger exchange members usually acquire membership in the clearing house; other exchange members "clear" their transactions through clearing house members. While the New York Cotton Exchange has 450 members, the Clearing Association is capitalized with only 150 shares and limits each clearing member to a maximum of 5 shares. In Chicago, with a Board of Trade membership of over 1,600, clearing house members in the past have averaged not more than about 150.

Operating expenses of the clearing association are defrayed from a special clearing fee levied on all members of the association (and through them on nonmembers). Where fees are larger than needed, dividends are paid to the clearing house members at the end of a year. In cotton the clearing fee is 10¢ per contract for clearing house members.

Basic Theory of the Clearing House.—The basic conception of the clearing house is that it takes the place of the buying or selling ex-

change member. It is substituted as seller to all buyers, and as buyer to all sellers. In this way a maximum number of direct settlements are automatically made possible at the close of every trading session.

Purposes of the Clearing House.—The certificate of incorporation of the New York Cotton Exchange Clearing Association, Inc. states its purpose as follows:

1. The purchase and sale of cotton for future delivery and the acquisition of contracts made in accordance with New York Cotton Exchange rules and the **assumption of the obligations arising under such contracts.**
2. The settling, adjusting and clearing for compensation of such contracts.
3. The buying, selling, receiving, carrying, storing, and **delivering of cotton** in connection with the first two objectives.
4. The protection of the association against loss in its business by establishing a Guaranty Fund to be raised by contributions and/or assessments.

FINANCIAL SAFEGUARDS.—In view of the central role of clearing associations in futures trading, an elaborate system of protection for clearing house members exists. The clearing house has to make good in case of a member's default on his obligation. Financial protection is provided through:

1. The permanent guaranty fund carried by all clearing associations.
2. Margining of all outstanding member obligations.

The New York Cotton Exchange Clearing Association, Inc. maintains a guaranty fund of $7,500 for each clearing member. Guaranty funds in other exchange clearing associations vary from $5,000 to $15,000 per member.

DAILY REPORTS ON TRANSACTIONS.—All clearing house members submit daily reports on their transactions to the clearing association, as well as their net commitments.

Every transaction on a commodity exchange is first registered on a **confirmation slip.** From these confirmation slips—checked as to accuracy at the end of each trading session—each clearing member prepares daily **purchase and sales sheets** and a **recapitulation sheet** showing his previous positions and daily sales. These sheets must be submitted to the clearing associations within a specified number of hours after the close of trading, and serve for the determination of the member's margin obligations with the clearing associations.

ORIGINAL MARGINS.—Since the clearing association assumes the financial risk under each outstanding contract, an adequate margin must be kept by each clearing member at all times. The regulations are very specific as to original margins to be paid into the clearing association by members. In most instances they are scaled according to the size of the net commitments held by a member.

Thus, the New York Coffee and Sugar Clearing Association, Inc. scales its original margin coffee requirements as follows:

$250 per contract for the first 500 contracts (net)
$500 per contract for the next 500 contracts (up to 1000)
$750 per contract for the excess over 1000 contracts

Original margin requirements for straddle positions usually are considerably smaller. Some clearing associations do not demand any clearing house margins on such positions.

VARIATION MARGIN.—All outstanding futures contracts are adjusted to the daily closing price each day through the clearing association. This prevents margin impairment and enables members to withdraw profits on outstanding commitments from clearing house margin accounts.

In case of wide price fluctuations during one trading session, the clearing association may call for additional margins during the day. Such calls must be met within one hour after delivery.

Losses paid to the clearing association or profits received from it by a clearing member reflect the customer-client position of the clearing member or exchange members for whom the clearing member did the clearing. Additional margin calls are passed on to the client, while profits received are credited to the client.

HANDLING OF DELIVERIES.—One important function of the clearing associations is the handling of deliveries of actual commodities against future contracts at maturity through the issuance of delivery or transferable notices, as described under Deliveries on Contract.

Hedging

THEORY AND PRACTICE OF HEDGING.—The modern futures contract was evolved to minimize price risks inherent in shipping commodities over long distances or in the time lag between production of a commodity and its consumption. The futures markets enable producers, processors, dealers, or manufacturers to pass on the price risk between purchase and sale or purchase and consumption of a commodity to the broad group of buyers of futures contracts, and thereby minimize this price risk for themselves. This function of the futures market is called **hedging.**

Definition of Hedging.—The **purpose** of hedging is to avoid or minimize price risks in connection with obligations to receive or deliver commodities, or positions in cash commodity markets. A hedge has been defined as "a sale or purchase of a contract for future delivery against a previous purchase or sale of an equal quantity of the same commodity or an equivalent quantity of another commodity that has a parallel price movement, and where it is expected that the transaction in the contract market will be cancelled by an offset transaction at the time the contemplated spot transaction is completed and before the future contract matures." (Cox on Hedging Cotton, N. Y. Jour. of Commerce.)

Expressed even more broadly, hedging is the practice of buying or selling futures to counterbalance an existing position in the trade market, and thus avoid the risk of unforeseen major movements in price. (Hoffman, Futures Trading Upon Organized Commodity Markets in the United States.)

MAJOR TYPES OF HEDGES.—Producers, manufacturers, importers, or dealers depend for their livelihood on an expected reasonable merchandising profit, manufacturing profit, or a commission. Unex-

pected price fluctuations can completely wipe out their anticipated normal income and cause heavy losses unless they protect themselves through proper use of futures markets. It is no exaggeration to say that futures markets exist primarily for the purpose of providing hedging facilities for the trades and industries whose commodities are traded on such market.

The following examples show how this form of price protection can be utilized by various trade interests.

Processor's Hedge.—A flour miller has made a contract in July to deliver 5,000 barrels of flour in December. He will not need the wheat to fill this contract until November; yet there is no way of telling what the price of wheat will be at that time. To protect himself against a rise in the price of wheat between July and November which might wipe out his expected profit, he immediately buys 5 December futures contracts on the Chicago Board of Trade (since it will take 25,000 bushels of wheat to mill 5,000 barrels of flour). Assuming that wheat prices, between the time of the flour sale and the actual wheat purchase in November, rise 2¢ a bushel, the miller will lose 2¢ a bushel on his flour contract, but at the same time he will make a profit of about the same amount on his purchase of December wheat futures. He has thus successfully "protected" his merchandising profit.

Importer's Hedge.—An importer of crude rubber has contracted with a producer in British Malaya to import 100 tons of crude rubber into New York at a price of, say, 20¢ per pound without having an immediate buyer for this rubber. Should the price of rubber decline 3¢ per pound while it is in transit, a loss of $6,720 would result for the importer unless he protected himself against just such a possibility. This he can do by selling 10 futures contracts on the rubber exchange at the time he buys the actual rubber in Malaya. If he has done this and the price of rubber declines 3¢ per pound before he can resell it, his account will show a profit of 3¢ a pound on the 10 contracts he has sold on the exchange, to offset the loss on the sale of actual rubber.

Dealer's Hedge.—A cotton merchant in a southern port receives an order from a spinner abroad for cotton of a specified grade and staple which usually commands a premium over the basis grade. He agrees to sell such cotton for delivery in December, although the contract is made at a time when the crop has not yet been harvested and possibly has not even been planted. The risk to which this merchant has exposed himself by entering into an unqualified contract can easily result in heavy loss. Normally he expects to earn a commission of 1% on such sale. But if the price of cotton were to advance 5¢ a pound between the time when the contract is made with the foreign spinner and the time when the merchant enters the market to buy the cotton for shipment, this would not only wipe out his anticipated profit but cause a ruinous loss. The only way he can protect himself against such possibility is to buy immediately an equivalent amount of December cotton contracts.

Producer's Hedge.—A mining company expects to produce 5,000 tons of copper during the next 6 months. Its executives feel that while present copper prices are high enough to realize a satisfactory profit, the trend is toward lower copper prices. If the company is unable to find buyers in the cash market who are willing to purchase the expected

5,000-ton output at a satisfactory price, it can turn to the copper futures market in order to sell copper futures to the extent of 5,000 tons. As the copper then is mined and sold to consumers, futures will be purchased back on the exchange. Assuming that copper prices actually do go down during this period, the company will offset losses from cash sales of the copper with profits on the futures transaction.

Manufacturer's Hedge.—Where a manufacturer is compelled to set prices on his products a considerable time ahead of actual manufacture and where he does not want to increase products' prices later on, unexpected price advances in his major raw materials may severely cut his profit margins. Where raw materials he needs are traded on a futures exchange, he can minimize this risk by purchasing futures contracts equivalent to his manufacturing requirements, unless he has already purchased the commodity at a satisfactory price on the cash market. While this is not a perfect hedge, it is a procedure which may prove extremely beneficial to the manufacturer. A case in point is the purchase of hide futures as a protection against rising leather prices, once a manufacturer has committed himself to specific selling prices over a considerable period.

Hedging Inventories.—Declines in the value of inventories constitute one of the greatest business risks. The danger is aggravated in declining markets because buyers may withdraw entirely. Futures exchanges offer the opportunity to hedge inventories by selling futures. The futures contracts are sold as inventories are liquidated in regular channels of trade.

Besides protecting the value of commodities in store, such hedging of inventories greatly facilitates financing because banks extend more liberal credit lines where inventories are hedged.

HEDGING VERSUS SPECULATION.—The aim of hedging is to segregate the elements of merchandising and speculation in business. A hedger, in protecting himself against undue price risks, foregoes the possibility of speculative price gains if prices should move in his favor. Many concerns do not follow a policy of **constant hedging,** but use this device only if they are in particular doubt regarding prospective market trends. Such "stop-gap" hedging involves a combination of speculation and hedging.

Although hedges theoretically may be in the buying or selling side of the market, hedging operations are preponderantly on the short side of the futures markets. Buying hedges are encountered most in the cotton market. In no case therefore, does hedging alone provide a balanced futures market; it must be complemented by speculative activity.

TAX STATUS.—Profits and losses resulting from hedge transactions are considered ordinary business income or expense for income tax purposes. The Bureau of Internal Revenue is taking a rather narrow view in defining a "hedge" for tax purposes, however. This has created a considerable degree of uncertainty in trade circles and may have to be resolved through new legislation.

LIMITATIONS OF HEDGING.—Hedging relies on a basic assumption that price movements in cash and futures markets are parallel. This is generally true because:

1. Future contracts can be converted into the cash commodity if either buyer or seller desires. Thus, the "price relationship between the two is very much the same as that of a convertible bond to the stock into which it may be exchanged." (Hoffman)
2. Experienced exchange traders constantly watch the price relation of cash and futures markets for spreading operation opportunities, which help maintain parallel price movements between cash and futures prices.
3. Both cash and futures prices are determined by the same basic demand and supply factors.

Yet, at times, cash and futures prices may drift apart.

Deviations in Price Spreads.—Price discrepancies between futures and cash markets may occur near the end of a crop year when short supplies strengthen the cash price. Also, the basis grade on which the futures contract is based may be out of line with the grade of the commodity needed by the hedger. Such risks are known as "basis risks." Due to them, hedging operations are far from a simple matter, and qualified persons should be consulted by those without experience in such transactions.

Basis Gains and Losses.—The hedger is more concerned with the **spread** between prices in the spot and futures markets than with the price **trend.** Transactions in the spot market frequently are not in the basic or contract grade, particularly in the cotton trade. Numerous varieties of cotton either command a premium over the basic grade or are quoted at a discount under that grade. In trade terminology, where a grade demands a premium it is quoted so many points "on" the price of a specific futures delivery. Where a discount exists, it is quoted so many points "off" the delivery month. Thus, a sale of cotton may be of strict low middling grade at "60 points off December," or it may be of good middling at "50 points on December."

For the hedger this spread between the December contract and the specific grade involved in his cash transaction is all-important. The difference between the two is known as "basis." Consequently, hedging is often called **"trading in basis."** In other words, the spread between spot and futures prices is the **base** on which the hedge is built. Shifts in this base or foundation may upset the whole hedge. Changes in the basis yield a profit in case the spread between the two prices changes in the hedger's favor, a loss if the opposite is true. These changes are called "basis gains" or "basis losses."

Expected and Unexpected Basis Changes.—Basis gains or losses fall into two groups: those that can be **reasonably expected** and others that are **entirely unexpected.** Most important among expected basis gains or losses are those due to carrying the commodity forward in point of time within a given season, changes in the condition or quality of the commodity and changes in location.

Most important among unexpected factors is the weather. The dividing line between changes that are expected and those that are not is largely a matter of experience and ability to appraise present and future market conditions.

HEDGING AND INSURANCE.—Because "basis" losses may occur, hedging does not provide a foolproof guaranty against loss. It would be misleading to say that hedging is insurance. It can be likened

to insurance, but it would be far more correct to say that insurance is a more perfect type of hedge. This is not to minimize the economic importance of hedging, but to emphasize its complexity. It is an involved procedure that must be mastered for good results. Wholesale handlers of grains and cotton, dealers, merchants, elevator interests, or shippers are most likely to profit by skillful handling of hedges, or to lose because foreseeable basis changes were not considered. This fact applies both to the placement of hedges and shifting from one delivery into another.

PROBLEMS IN HEDGING.—Many perplexing problems arise in connection with hedging and these problems necessitate making definite decisions as to the action to take.

Placing a Hedge.—The initial decision facing a hedger is where to place the hedge. This involves selection of the futures market where several are available (such as Chicago and Minneapolis), and selection of the **specific delivery month** in which the hedge is to be placed.

One should then determine whether the normal price relation between different markets or delivery months had been temporarily disturbed. Where this is the case, good reason exists to select one market over another, or one delivery month over another. Where one market is abnormally high in relation to another when the hedge is placed, it should be used for a hedge **sale** but not for purchasing a futures contract as a hedge.

It is important to avoid **inactive delivery months** in placing hedges, since this may give rise to grave difficulties when the hedge is to be closed out or "lifted."

Shifting a Hedge.—Normally a delivery month will be selected which closely approximates the time when the corresponding position in the cash commodity will be terminated. Where hedges will run for a longer period, this may involve a shift from a nearby delivery month into a more distant delivery. Where this becomes necessary, hedgers are well advised not to delay switching too long. To avoid erratic price movements in the maturing month—which are common and can destroy a large part of the price protection for the hedger—hedges should be shifted into forward positions before a delivery month matures. Squeezes are most likely to occur when a delivery enters into its final liquidation phase.

Hedging Balances.—Hedging enters into the operations of a dealer, merchant or processor only to the extent that an uncovered **net commitment** exists in the cash commodity. Where a company or person is long and short equal amounts in the cash market, this in itself constitutes a hedge. When a terminal operator has 2,000,000 bushels of wheat in store but forward sales of 200,000 bushels on his books, his net cash market position amounts to 1,800,000 bushels. This is the amount to be covered through sales of 1,800,000 bushels in the futures market. If he later sells another 100,000 bushels of cash wheat, a similar amount of futures is bought back and his short position in the futures market reduced to 1,700,000 bushels.

Anticipating Hedge Requirements.—Where a dealer or merchant expects heavy hedge selling at the time a crop begins to move in vol-

ume, and he has a fair idea of the amount of hedges he will place, he may decide to start selling futures in small quantities before the start of the heavy crop movement. He thus anticipates his hedge requirements. This constitutes an open speculation until the cash commodity is actually acquired.

Buying Cotton on Call.—Cotton mills requiring special grades of cotton which are scarce and expensive like to cover their spinning needs far in advance, preferably before a crop has been harvested. But uncertainties over sales and price prospects frequently make them hesitant to purchase such cotton far in advance at fixed prices—regardless of what the price trend may be between the time of purchase and when they actually need the cotton. While hedging could be used, a different system of handling such mill purchases from merchants has been developed in the cotton market. Under this system the purchase price for such spot cotton is not fixed outright; instead mill and cotton merchants merely agree on a premium over a designated futures delivery at which the mill is to get such cotton later on. The buyer then has the privilege of selecting the exact time of delivery. When he finally calls for delivery, he pays the actual price of the specified delivery month plus the agreed upon premium of so and so many points "on this contract." This practice is known as **buying cotton on call.** When the mill calls for the cotton it "fixes the price."

This system works in practice as follows: A mill estimates its cotton needs for the next year at 5,000 bales of strict middling white 7/8" Texas cotton. It wants to secure this cotton by buying it on call. The mill contacts a cotton merchant and finds that he is willing to sell such cotton at a price of 100 points "on May." This price includes the merchant's profit as well as shipping costs to the mill. In calculating the differential, all likely basis changes are taken into account by the merchant. Whenever the mill wants the cotton or part of it, it notifies the merchant and pays the May future price on the day the cotton is called plus the "on" difference of 100 points.

If the cotton is not called previous to the termination of the contract with the merchant, it is automatically called on the last day unless an arrangement is made for extension of the contract.

Under this call arrangement the mill is not protected against price changes in cotton, but it has the assurance that it will get the desired grade when it wants it. The price risk is transferred to the merchant who is under obligation to deliver on call the particular grade of cotton at whatever the price may then be, plus the agreed upon premium covering his costs and profit. He has to go out and buy the desired grade immediately, but he obtains hedge protection by selling futures from the time he buys the cotton until the date it is called by the mill. The major portion of cotton sold to mills is on buyer's call.

The Commodity Futures Authority publishes weekly figures on unfixed call cotton. These statistics help to evaluate the technical condition of the futures market.

To carry this type of transaction one step further, the merchant may buy the desired type of cotton from a farmer on a similar open price basis. He may agree with the farmer that the sale shall be consummated at a price of, say, 20 points on May, or allow the farmer to fix the price whenever he wishes, as long as it is within an agreed period.

Mechanics of "Call Cotton" Transaction.—The mechanics of the complete transaction when cotton is both bought and sold "on call"—so that both the farmer and the mill have the right to fix the price when they choose—are as follows (example worked out by Merrill Lynch, Pierce, Fenner & Beane):

	Debit	Credit
Jan. 2—Merchant bought from a farmer 100 bales Middling 15/16" at Houston at 20 points on May futures, allowing the farmer to fix the price when he chose, but before April 16. (May was then 20¢.)		
Jan. 29—The merchant sold the cotton to a mill in Greensboro, on buyer's call, at 135 points on May, of which 90 points were for freight, futures commission and other expenses. He gave the mill the right to fix the price when it pleased but before April 16. (The market then was 20.80¢ for May.)		
Feb. 10—The farmer notified the merchant he wanted to fix the price for his sale on the basis of 20.90¢, then ruling for May. This made the sale price 20.90¢ plus .20 or 21.10¢ and the amount paid the farmer was	$10,550.00	
(The farmer probably received $8,000 on account when he delivered cotton immediately and it was agreed final adjustment would be made when the price was fixed.) At the same time the merchant sold a May futures contract at 20.90¢		$10,450.00
Apr. 15—The mill notified the merchant to fix the price on its purchase from the merchant at the then current level of 18.80¢ per pound for May, making the sale price to the mill 18.80¢ plus 1.35, or 20.15¢. The merchant received from the mill		10,075.00
The merchant, at the time of shipping to the mill, would have to pay freight, and all other charges, equal to 90 points, or	450.00	
On the same date that the price to the mill was fixed, the merchant bought one May contract. The price level then was 18.80¢ making the value	9,400.00	
The total result of the completed spot transaction and the liquidated futures hedge was therefore	$20,400.00	$20,525.00
Making a profit of	125.00	

Interpreting Futures Markets

IMPORTANCE OF MARKET INFORMATION.—The two basic prerequisites for successful utilization of futures markets by trade interests or speculators are:

1. Proper use of all available market information.
2. Correct interpretation of technical market factors.

A great wealth of statistical and general information is available on all commodities which are traded on futures exchanges.

Each exchange provides a complete service on news and statistical data on its own commodities which is available to its members and, through the medium of the trade press and the commission brokers, to the public at large. This information includes government reports on the progress of agricultural crops, statistical information gathered by the exchanges themselves, private crop reports and market reports issued by individual exchange members. Weather reports also must be closely followed.

PRICE SPREADS.—Changes in the price relationship between different delivery months in a futures market offer valuable clues to changes in market conditions. Normally the distant delivery months are quoted at premiums over nearby months. These premiums reflect carrying charges for the commodity, chiefly storage in warehouses, insurance and credit costs.

Taking the hide futures market as an example, it costs about 10 points per month (or .1¢ per pound) to carry hides in warehouses. Therefore, the hide futures market normally shows a spread of 10 points per month; or 30 points between each of the active positions which are 3 months apart.

Deviations in quotations from such carrying charge schedules seldom go far, since the trade constantly watches differences for arbitrage or spreading possibilities. It is significant, therefore, when the normal relation between delivery months is upset and nearby positions go to premiums over distant months. This points to the development of acute spot supply shortages, or at least considerable nervousness over the possibility that congestion or even a squeeze may develop in a maturing delivery month. At the start of World War II nearby premiums developed in most futures markets. In rubber they reached over 400 points or 4¢ per pound at one time.

TRADING VOLUME.—All futures exchanges publish daily volume figures which indicate the breadth of a futures market. If trading volume is low, the value of the market for hedging purposes is diminished, as the placing or lifting of even moderate hedges may be possible only at considerable price concessions.

The combined trading volume of all futures markets gives the over-all picture. In periods of active commodity trading before World War II, the combined daily trading volume in all futures markets frequently averaged as high as 15,000 to 20,000 contracts per day. Technical factors may distort volume figures, as when heavy switching takes place from one delivery month into another.

OPEN INTEREST FIGURES.—One of the most important differences between security and commodity markets lies in the fact that, while in the stock market the number of shares of each issue is fixed, the number of futures contracts is a constantly changing market factor without any limitation. The number of contracts outstanding in each commodity and in each delivery month, as well as changes from day to

day and over extended periods of time, are factors of great importance in evaluating trends in futures markets.

The total number of futures contracts which remain undelivered at any one time is called the "open interest." Other terms used are "open commitments" or "open contracts." Short and long commitments in a futures market—or in each delivery month—must always be the same, since no futures contract can be sold without a buyer, and vice versa. Hence long and short commitments are not added up in calculating the open interest, but each contract is counted only once. If the open interest in a futures market is reported at 1,000 contracts, this means that there are 1,000 long and 1,000 short positions open.

Open Interest Reports.—Up to a few years ago the size of open commitments was an unknown market factor in all futures markets but grain. The Grain Futures Administration started publication of these data in 1923. Nearly all exchanges now supply daily figures on the size of, and changes in, open futures commitments. It is generally recognized that proper use of these figures is very helpful in an appraisal of changes in the technical position of futures markets.

Open Interest Formula.—Changes in the open interest frequently explain price changes. A rising market may be due either to new buying or short covering. Conversely, a declining market may reflect liquidation or short selling. Changes in the open interest on days when these price movements occur permit a determination of the real factors behind the price change. Short covering causes a decline in the open interest, as does liquidation of futures contracts during a declining market. Conversely, short selling and new buying add to the open interest.

The following formula shows these various possibilities in graphic form:

Price up	Open interest up	New buying
	Open interest down	Short covering
Price down	Open interest down	Liquidation
	Open interest up	Short selling

DELIVERY CYCLES.—Open interest figures are of particular value because they are given for each delivery month separately. This permits their use in evaluating the technical condition of individual delivery months.

The "life" of each futures delivery is limited. Trading starts on a specified day from scratch, meaning that on that particular day no open interest exists in this position. At the other end of its life span, trading in each delivery month ends at a fixed date—the last trading date. Similarly, deliveries on a futures contract never can be made before the "first notice" day.

These dates, particularly the first notice day and the last trading day, are of great importance in determining the technical state of the market at any particular time. The rate of liquidation just prior to the first notice day can be measured by changes in the open interest.

DANGER SIGNALS.—Since open interest figures permit traders to follow the development of each delivery month, and particularly switching operations from one into another delivery, they function as danger signals for the quick detection of maladjustments in a delivery

month. If, with the approach of the maturity of a futures contract, the open interest in that month fails to show a normal contraction, something is likely to be wrong. Deviations from the normal rate of liquidation may be due to stubbornness on the part of longs or shorts. In either case prices during the delivery month are likely to be extremely sensitive, and erratic price swings may occur.

DELIVERABLE STOCKS.—The key to the situation usually is found in the size of the stocks of the commodity available for delivery on contract. Therefore, open interest changes must be considered in conjunction with the size of these stocks as reported daily by the exchanges. If stocks are low in relationship to the open interest in the maturing month, longs may feel encouraged to hold on to their commitments, thus pushing the price up. Conversely, if stocks are large in relationship in the open interest in the maturing month, the shorts would appear to have the better of the argument, with prices likely to come down under pressure.

Since only specified grades of a commodity may be delivered on a futures contract, it is important to know the exact size of these stocks at all times. First-hand indicators of their size are stocks in licensed warehouses. However, consideration must also be given to available supplies which have not yet been, but could be, certificated in time for delivery against a contract. Usually, only 24 to 48 hours are required to rush additional certifications through. Usually, changes in deliverable stocks in licensed warehouses during the last month of trading in an active delivery is at least equally as important as the absolute size of the stocks, since they hint trade intentions with regard to deliveries on the contract.

Spot Commodity Markets

CASH DEALINGS IN COMMODITIES.—Cash dealings in commodities are not normally conducted on organized exchanges. There are only a few exceptions from this rule, such as the spot markets maintained by most grain and cotton exchanges, the Savannah naval stores market and the tobacco auction markets in the South. Even in these instances procedure is far less standardized and controlled than in the case of futures exchanges. Grain exchanges with spot cash market facilities generally provide a reporting service for recording cash grain transactions and have definite rules relating to confirmation of trades, surrender of documents, arbitration of disputes, defaults on contracts, commission rates, etc.

Cash dealings—whether for immediate or forward delivery—are not conducted on the basis of highly developed, uniform contracts. Buyers and sellers in cash commodity markets may modify a contract in whatever detail they desire. The most common terms in cash markets are for immediate and for 3 months delivery. However, forward delivery terms vary greatly, and can be fixed to suit every possible situation as regards buyers' needs. A popular practice is to purchase "on contract." This is an arrangement under which a buyer contracts with a supplier for his needs for a whole season or an otherwise determined period, and deliveries are made according to a carefully determined schedule on the buyer's call. The buyer does not usually pay the price that prevails

when the contract is made, but that prevailing at the time of each delivery. This method is widely used in supplying fuel needs for industrial and private users.

DETERMINATION OF SPOT PRICES.—A major difference between futures and spot markets is the form of price reporting. While every price, in a free market, in the final analysis must reflect the relationship between supply and demand forces, most spot markets lack the price continuity and the open pricing through outcry in full public view which is one of the chief advantages of the futures markets. Price changes in spot markets between successive transactions are frequently wider than in futures trading.

The lack of concentration of spot dealings in most commodities under one roof—such as an exchange provides—frequently results in difficulties in determining the exact spot price for most commodities from day to day. Here again, such spot markets as cotton, grains, and naval stores are the exception rather than the rule. In cotton especially, a highly developed system of determining and reporting spot prices exists. In most fields, spot price reporting is done by trade publications rather than by the trades themselves. Accuracy depends largely on the experience and skill of the reporters used by the trade press for this purpose.

Price Reporting.—Trade publications usually attempt in their spot price reporting to show the price at the close of trading each day which most nearly reflects the prevailing market. Instances where small lots of a commodity, such as distress lots, are offered at a lower price are usually ignored, although they may be mentioned. In some instances, all prices are reported at which **actual dealings** have occurred during the day, even if only small transactions took place at the outside points of the range. This is usually a less satisfactory form of reporting, for it fails to indicate what the prevailing market in a commodity really is.

In most publications where price ranges for spot prices are shown, this range does not indicate **bid and asked prices**, but rather the range in **asked** prices, since it is the exception rather than the rule in these markets that a uniform asked price is quoted by all sellers.

Where no transaction has occurred at the price range shown, prices usually are given as "nominal." Prices shown in the trade press are either at the manufacturers' or wholesale level. Due to the great number of variations existing in the quotation of spot prices, care must be taken to ascertain the exact significance of any given quotation before it is used.

TRADE TERMS USED IN CASH COMMODITY TRANSACTIONS.—While buyers and sellers of cash commodities have complete freedom in determining contract terms for individual transactions, such business is greatly facilitated by the use of well-established trade terms. Obligations of sellers and buyers under these various contract forms are as follows:

"F.A.S. (Named Port)."—Under this quotation:

Seller must:

1. Transport goods to seaboard.
2. Store goods in warehouse or on wharf, if necessary, but in any case at risk and expense of buyer.

3. Place goods alongside vessel, either in a lighter or on the wharf, or, in the event buyer fails or refuses to furnish vessel upon arrival of goods at seaboard, store in warehouse or hold in cars at buyer's expense.
4. Be responsible for loss and/or damage to goods until they have been delivered alongside ship or on wharf or stored in warehouse.

Buyer must:

1. Be responsible for loss and/or damage thereafter, and for insurance and/or demurrage and car service.
2. Handle all subsequent movement of the goods.
3. Furnish vessel ready and able to receive goods on their arrival at seaboard.
4. Pay cost of hoisting goods into vessel where weight of goods is too great for ship's tackle.

"F.O.B. (Named Point)."—Under this quotation:

Seller must:

1. Furnish a railroad or privately owned car, which shall be suitable for transportation of the product sold; properly cleaned and equipped to receive the produce; in apparent good order and condition to protect the goods under reasonable and normal handling by the carrier.
2. Place goods on or in cars.
3. Secure railroad bill of lading.
4. Be responsible for loss and/or damage to goods until they have been placed on or in cars and a bill of lading secured from carrier.

Buyer must:

1. Furnish seller with shipping permit if any required.
2. Furnish the seller with full and complete instructions for shipping, routing, inspecting, weighing, icing, and re-icing, or specifically authorize the seller to act for him in these matters, in which case the seller assumes no responsibility other than to use his (the seller's) best judgment.
3. Assume all shrinkage, expense, loss, and/or damage to goods after seller has complied with his obligations as set forth above.

". . . Freight Equalized."—Under this quotation:

Seller must:

1. Furnish cars the same as under F.O.B. rules.
2. Place goods on or in cars.
3. Secure railroad bill of lading.
4. Pay or allow any costs of freight or transportation by cheapest suitable all-rail route from shipping point to destination beyond the named city in excess of such costs had shipment been made from the named city to same destination. In case such costs to destination are less than if shipped from the named city, seller shall be entitled to add such difference to the invoice.
5. Make any necessary freight contract in accordance with buyer's shipping and routing instructions.

Buyer must:

1. Furnish seller with shipping permit if any required.
2. Furnish the seller with full and complete instructions for shipping, inspecting, weighing, routing, icing, and re-icing, or specifically authorize the seller to act for him in these matters, in which case the seller assumes no responsibility other than to use his (the seller's) best judgment.

3. Assume all expense, loss of, and/or damage to goods after seller has fulfilled his obligations as above.

"C.A.F. (Named Destination)."—Under this quotation:

Seller must:

1. Furnish cars the same as under F.O.B.
2. Place goods on or in cars.
3. Secure any necessary freight contract or shipping permit.
4. Secure railroad bill of lading, same to be endorsed "Lighterage Free" if so requested by buyer, provided this can be done without additional expense to seller.
5. Pay (or allow) freight between point of shipment and destination.
6. Be responsible for any loss of or damage to goods until they have been placed on or in cars and the bill of lading secured from carrier —seller not being responsible for delivery of goods at destination.

Buyer must:

1. Assume any expense, shrinkage, loss of, and/or damage to goods after seller has fulfilled his obligations as above.

"Delivered (Named Destination)."—Under this quotation:

Seller must:

1. Furnish cars as specified under F.O.B. rule.
2. Place goods on or in cars.
3. Secure any necessary freight contract or shipping permit.
4. Secure railroad bill of lading.
5. Pay (or allow) freight between point of shipment and destination.
6. Assume all responsibility for expense, shrinkage, loss of, and/or damage to goods until they are delivered by carrier at destination named.

Buyer must:

1. Assume any expense, shrinkage, loss of, and/or damage to goods after arrival of goods at destination named.

"In Store."—Under this quotation:

Seller must:

1. Furnish buyer with a warehouse receipt or delivery order showing where stored and with suitable endorsement or instructions to warehouseman to surrender goods to buyer.
2. Pay (or allow) all storage, insurance, or other charges up to date of sale to buyer.
3. Be responsible for any loss of, and/or damage to, the goods up to time of delivery of warehouse receipt or delivery order, but not thereafter.
4. Refund to buyer any shortage shown by the official certificate of inspection.

Buyer must:

1. Accept such warehouse receipts or delivery order as actual transfer of title to property from seller to buyer, and assume any expense, shrinkage, loss of, and/or damage to goods thereafter.
2. Notify the seller within 2 days after receipt of such warehouse receipt, delivery order, or document transferring title, of his desire to have such goods officially inspected and/or officially weighed. His failure to notify the seller of such desire within the time specified above shall constitute an acceptance of the goods and a termination of seller's liability for their condition and/or weight.

SECTION 26

MATHEMATICS OF FINANCE

CONTENTS

PAGE

Types of Interest

Definitions 1149
Principal 1149
Rate 1149
Time 1149
Basic types of interest 1149
Computing elapsed time in days 1150
Use of tables 1150
Number of each day of the year counting from January 1 (*f.* 1) 1151
Exact number of days in loan period (*f.* 2) 1151
Accruing interest on bonds 1152

Ordinary Interest

Basic formula 1152
Short-cut methods for computing ordinary interest 1152
Breaking up the time element 1153
Odd interest rates 1154
One-day rule 1155

Exact Interest

Nature of exact interest 1155
Finding the value of 1/73 1156
Use of exact interest tables 1156
Illustrative page from exact interest tables (*f.* 3) 1157
Expanded exact interest table, 4% (*f.* 4) 1158
Expanded exact interest table, 5% (*f.* 5) 1159
Expanded exact interest table, 6% (*f.* 6) 1160
Interest on U.S. government securities 1161
Exact number of days in six-month interest period (*f.* 7) 1161
Interest for 1 day on $1,000 bond at different rates and periods (*f.* 8) 1162
Anticipation 1162
Anticipation rates and exact interest per $100 (*f.* 9) 1164–1165

Bank Discount

Loans and discounts defined 1166
Types of notes 1166
Interest-bearing promissory note (*f.* 10) 1166

PAGE

Types of notes—*Continued*
Non-interest-bearing promissory note (*f.* 11) 1167
Basis for calculating proceeds 1167
Due date of notes 1167
Computing proceeds and discount on noninterest-bearing paper 1167
Discounting interest-bearing paper .. 1168
Finding principal to yield given proceeds 1168
Computation of interest under partial payment plans 1169
The Merchant's Rule 1169
The United States Rule 1169
Bank discount vs. true discount 1170
Relation of bank discount rate to true discount rate 1171

Chain Discounts

Definition of chain discount 1172
Finding equivalent single discount.. 1172
Net cost factor tables 1173
Typical page of a net cost factor table (*f.* 12) 1174

Compound Interest

Compound interest definitions 1175
Finding the compound amount 1175
Arithmetical solution 1175
Solution by formula 1175
Value of $(1+i)^n$ from prepared tables 1176
Compound amount tables (*f.* 13) 1177–1180
Value of $(1+i)^n$ by logarithms.. 1181
Definition of present value 1181
Finding present value from tables .. 1182
Present value tables (*f.* 14) 1183–1186
Finding present values by logs 1182
Other converse cases 1182
Finding value of n 1187
Finding value of i 1187

Annuities

Definitions 1188
Ordinary annuity 1188
Annuity due 1188
Deferred annuity 1188
Amount or final value of annuity.. 1188

PAGE

Definitions—*Continued*
Perpetuity 1188
Life annuity 1189
Annuity certain 1189
Final value of ordinary annuity 1189
Final value of annuity table (*f.* 15) 1190–1193
Final value formula 1194
Computation of final value by logarithms 1194
Sinking fund calculations 1195
Finding amount of sinking fund instalments 1195
Annuity which 1 will buy (*f.* 16) 1196–1199
Schedule of sinking fund instalments (*f.* 17) 1200
Finding the number of payments to sinking fund 1201
Final value of annuity due 1201
Present value of ordinary annuity .. 1202
Present value of annuity table (*f.* 18) 1203–1206
Proof of amortization of loan (*f.* 19) 1207
Annuity which $1 will buy 1207
Schedule of interest payments and bond retirements for serial bond issue (*f.* 20) 1209
Finding the number of payments to amortize a loan 1208
Present value of annuity due 1210

Bond Valuation

Definitions 1210
Bond 1210
Premium and discount on bonds.. 1210
Nominal and effective interest rates 1210
Determining basis price of bonds .. 1211
Short method for finding basis price 1211
Amortization schedule 1212
Schedule of amortization (*f.* 21) 1212
Short-cut method for discount bonds 1213
Schedule of accumulation 1213
Accumulation table for $10,000 bond (*f.* 22) 1213
Bond valuation tables 1218
Values, to the nearest cent, of a bond for $1,000,000 at 3½% interest (*f.* 23) 1214
Values, to the nearest cent, of a bond for $1,000,000 at 4% interest (*f.* 24) 1215
Values, to the nearest cent, of a bond for $1,000,000 at 4½% interest (*f.* 25) 1216
Values, to the nearest cent, of a bond for $1,000,000 at 5% interest (*f.* 26) 1217

PAGE

Bond valuation tables—*Continued*
Finding price of a bond when the yield is known 1218
Finding yield when basis price is known 1218
Basis price for bonds bought between interest dates 1219
Accruing bond interest between interest dates 1221
Determining profit or loss on sale of bonds 1222
Finding yield between interest dates 1222

Logarithms

Definition and uses 1223
Characteristics of logs 1224
Log tables 1224
Sample page from table of logarithms to seven decimal places (*f.* 27) 1225
Finding the log of a number 1226
Interpolation 1226
Finding the anti-log 1227
Using logs to solve problems 1228
Case I. To multiply numbers 1228
Case II. To divide numbers 1228
Case III. To raise to a power 1229
Case IV. To find a root 1229
Case V. Successive calculations 1230
Six-place logarithms of numbers (from 1500 to 1699) (*f.* 28a) .. 1232
Six-place logarithms of numbers (from 3400 to 3799) (*f.* 28b) .. 1233
Six-place logarithms of numbers (from 5450 to 5899) (*f.* 28c) .. 1234
Six-place logarithms of numbers (from 9000 to 9499) (*f.* 28d) .. 1235

Slide Rule

Slide rule defined 1236
Scales of the slide rule 1236
Reading the scales 1236
Slide rule (*f.* 29) 1237
Division points on slide rule (*f.* 30) 1237
Relation of scales to logarithms .. 1238
Relation of slide rule to logarithms (*f.* 31) 1238
Multiplication by use of slide rule .. 1238
Multiplication on slide rule (*f.* 32, 33) 1239
Fixing decimal point in product .. 1238
Continued multiplication 1240
Division by use of slide rule 1240
Division on slide rule (*f.* 34) 1240
Fixing the decimal point in the quotient 1240
Continued multiplication and division 1241

SECTION 26

MATHEMATICS OF FINANCE

Types of Interest

DEFINITIONS.—Interest is ordinarily defined as consideration paid for the use of money. To the borrower it represents the cost of the loan, to the lender it is a source of income. The amount of interest depends on three factors:

1. Principal.
2. Rate.
3. Time.

Principal.—The principal is any sum of money upon which interest is to be computed. It may represent invested capital, as in the case of partnership equities, or a loan in the form of notes or the more formal bond indentures.

Rate.—The interest rate is usually expressed as a percentage of the principal per unit of time; for example, 4% per annum, 3% semiannually, etc.

Time.—The time refers to the period for which interest is to be calculated. Unless otherwise stated, interest formulas use the year as a unit.

BASIC TYPES OF INTEREST.—There are two basic types of interest, simple and compound. These may be represented as follows:

1. Simple interest.
   a. Ordinary.
   b. Exact—commercial practice.
   c. Exact—government securities.
2. Compound.

Simple interest refers to interest which is always computed on the original principal. If the interest is not paid when due, it is not added to the principal. Thus the amount of interest is always proportionate to the time.

Ordinary interest represents a type of simple interest computed on a 360-day year, commonly referred to as the **commercial year.** Under this method the year is divided into 12 months of 30 days each. Although the method is used in many commercial transactions, modifications are often introduced. For example, in discounting commercial paper, ordinary interest is calculated, but it is based upon the exact number of days in the discount period.

Exact interest is interest based on a 365-day year, or 366 days in leap years. It is generally employed by banks in allowing interest on daily balances, also in governmental calculations other than interest on government securities. In the latter case special tables are available for computing accrued interest on such securities.

Compound interest is obtained when the interest computed is added to the principal, thus arriving at a new principal periodically. In the succeeding period, the interest is computed on the new principal. Interest thus is converted into principal at the end of each interest period.

In general, simple interest is used for short periods, i.e., periods of less than a year, while compound interest is usually figured on obligations maturing after a year, or where called for by agreement.

COMPUTING ELAPSED TIME IN DAYS.—The most common method in computing the number of days between two dates is either to include the first day and exclude the last or vice versa. Thus, to find the number of days between July 12 and October 23, proceed as follows:

Excluding July 12, there are in

July	19 days
August	31 days
September	30 days
October	23 days
Total	103 days

Use of Tables.—Fig. 1 shows a convenient table for use in computing the elapsed number of days. The days in the calendar, beginning with January 1, are numbered consecutively from 1 to 365. Hence, to find the number of days between any two calendar dates, simply look up in the table the numbers corresponding to these dates and subtract the lower from the higher. The illustrations below are taken from Lang and Schlauch (Selected Tables for Business and Financial Calculations).

Example 1. Find the elapsed time from May 14 to September 22. From Fig. 1,

September 22	265 days
May 14	134 days
Elapsed time	131 days

Example 2. Find the elapsed time from October 28, 1943 to March 10, 1944. From October 28 to the end of the year, there are

$365 - 301 =$	64 days
From December 31 to March 10 (adding an extra day, because 1944 is a leap year) $=$	70 days
Elapsed time $=$	134 days

The table shown in Fig. 2 represents another method for figuring elapsed time which is sometimes more convenient. The table shows the number of days between any day of one month to the **same** day in another month. Using the same illustrations as above, the following calculations show how the method works.

Day of Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1	32	60	91	121	152	182	213	244	274	305	335
2	2	33	61	92	122	153	183	214	245	275	306	336
3	3	34	62	93	123	154	184	215	246	276	307	337
4	4	35	63	94	124	155	185	216	247	277	308	338
5	5	36	64	95	125	156	186	217	248	278	309	339
6	6	37	65	96	126	157	187	218	249	279	310	340
7	7	38	66	97	127	158	188	219	250	280	311	341
8	8	39	67	98	128	159	189	220	251	281	312	342
9	9	40	68	99	129	160	190	221	252	282	313	343
10	10	41	69	100	130	161	191	222	253	283	314	344
11	11	42	70	101	131	162	192	223	254	284	315	345
12	12	43	71	102	132	163	193	224	255	285	316	346
13	13	44	72	103	133	164	194	225	256	286	317	347
14	14	45	73	104	134	165	195	226	257	287	318	348
15	15	46	74	105	135	166	196	227	258	288	319	349
16	16	47	75	106	136	167	197	228	259	289	320	350
17	17	48	76	107	137	168	198	229	260	290	321	351
18	18	49	77	108	138	169	199	230	261	291	322	352
19	19	50	78	109	139	170	200	231	262	292	323	353
20	20	51	79	110	140	171	201	232	263	293	324	354
21	21	52	80	111	141	172	202	233	264	294	325	355
22	22	53	81	112	142	173	203	234	265	295	326	356
23	23	54	82	113	143	174	204	235	266	296	327	357
24	24	55	83	114	144	175	205	236	267	297	328	358
25	25	56	84	115	145	176	206	237	268	298	329	359
26	26	57	85	116	146	177	207	238	269	299	330	360
27	27	58	86	117	147	178	208	239	270	300	331	361
28	28	59	87	118	148	179	209	240	271	301	332	362
29	29		88	119	149	180	210	241	272	302	333	363
30	30		89	120	150	181	211	242	273	303	334	364
31	31		90		151		212	243		304		365

NOTE.—For leap years the number of the day is one greater than the tabular number after February 28.

FIG. 1. The Number of Each Day of the Year Counting from January 1

From Any Day of	To the Same Day of the Next											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Jan..	365	31	59	90	120	151	181	212	243	273	304	334
Feb..	334	365	28	59	89	120	150	181	212	242	273	303
Mar.	306	337	365	31	61	92	122	153	184	214	245	275
Apr..	275	306	334	365	30	61	91	122	153	183	214	244
May.	245	276	304	335	365	31	61	92	123	153	184	214
June	214	245	273	304	334	365	30	61	92	122	153	183
July.	184	215	243	274	304	335	365	31	62	92	123	153
Aug.	153	184	212	243	273	304	334	365	31	61	92	122
Sept.	122	153	181	212	242	273	303	334	365	30	61	91
Oct..	92	123	151	182	212	243	273	304	335	365	31	61
Nov.	61	92	120	151	181	212	242	273	304	334	365	30
Dec.	31	62	90	121	151	182	212	243	274	304	335	365

FIG. 2. Exact Number of Days in Loan Period

Example 1. Using Fig. 2, find May in the left-hand column and follow it across the page to the column headed September; the number is 123. This means that

From May 14 to September 14 represents	123 days
From September 14 to 22 equals	8 days
Elapsed time	131 days

Example 2. In Fig. 2 follow the October line across the page to the March column. The table reads 151, meaning that from October 28, 1943 to March 28 of the next year equals 151 days. Since 1944 is a leap year and the time is after February 28,

One day is added resulting in	152 days
Next, count back from March 28 to March 10	18 days
Elapsed time	134 days

Accruing Interest on Bonds.—See discussion later in this Section under Bond Valuation.

Ordinary Interest

BASIC FORMULA.—Ordinary interest is the product of the principal, the rate, and the time.

$$i = p\ r\ t$$

where i = Amount of interest
p = Principal
r = Rate
t = Time expressed in years

For example, to find the interest on \$12,148.72 for 153 days at 4%, the formula yields:

$$12{,}148.72 \times \frac{4}{100} \times \frac{153}{360} = \$206.53$$

This is the basic method, but for computation purposes it is somewhat awkward. Fortunately, a number of short-cuts are available.

Short-Cut Methods for Computing Ordinary Interest.—Interest rates of 4%, 4½%, and 6% lend themselves to short-cut methods of computation. These consist of finding the number of days required to produce decimal equivalents of the principal. The decimals most commonly used are 1% and .1%, thus making computation possible through a mere shifting of the decimal point. The first step required is to divide the 360-day year by the given interest rate to determine the number of days required to produce 1%. Thus, 6% a year is equivalent to 1% in 60 days (i.e., 360 divided by 6), etc. The short-cut formulas may then be tabulated as follows:

6%:
For 60 days, point off **two** decimals in principal.
For 6 days, point off **three** decimals in principal.
For 1 day, point off **three** decimals and divide by **6**.

4½%:
For 80 days, point off **two** decimals in principal.
For 8 days, point off **three** decimals in principal.
For 1 day, point off **three** decimals and divide by **8**.

4%:

For 90 days, point off **two** decimals in principal.
For 9 days, point off **three** decimals in principal.
For 1 day, point off **three** decimals and divide by 9.

Examples. Find the interest on the following:

			Answer:
1. $1,513.82	9 days	4%	$ 1.51
2. $6,818.71	80 days	4½%	$68.19
3. $4,253.64	1 day	6%	$ .71

Breaking Up the Time Element.—To find the interest for periods other than the key days mentioned above, the best procedure is to break up the time element so as to yield the key days or aliquot parts thereof. By an aliquot part is meant a fraction containing the number 1 in the numerator (e.g., one-third, one-fifth, etc.). The examples below serve to illustrate the method.

Examples. Find the interest for the following:

1. $1,628.39 at 6% for 72 days.
2. $2,839.27 at 4½% for 88 days.
3. $3,102.15 at 4% for 140 days.
4. $2,825.17 at 4½% for 23 days.
5. $4,031.73 at 6% for 53 days.

Solutions:

1.	60 days	$16.284	
	12 "	3.257	(1/5 of 60 days)
	72 "	$19.54	
2.	80 days	$28.393	
	8 "	2.839	
	88 "	$31.23	
3.	90 days	$31.022	
	45 "	15.511	(½ of 90 days)
	5 "	1.723	(1/9 of 45 days)
	140 "	$48.26	
4.	20 days	$ 7.063	(¼ of 80 days)
	2 "	.706	(1/10 of 20 days)
	1 "	.353	(½ of 2 days)
	23 "	$ 8.12	
5.	30 days	$20.159	(½ of 60 days)
	20 "	13.439	(⅓ of 60 days)
	3 "	2.016	(1/10 of 30 days)
	53 "	$35.61	

In those cases where the interest rates represent aliquot parts or multiples of the basic rates, calculation is most easily effected by using the base rate and dividing or multiplying by the appropriate factor.

Examples. Find ordinary interest on the following:

1. $7,385.29 at 2% for 161 days.
2. $6,428.17 at 3% for 117 days.
3. $5,047.82 at 9% for 57 days.

Solutions:

1. 4% Base

90 days	$ 73.853	
45 "	36.927	(½ of 90 days)
15 "	12.309	(⅓ of 45 days)
10 "	8.206	(1/9 of 90 days)
1 "	.821	(1/10 of 10 days)
161 "	$132.116	
2%	$ 66.06	(½ of 4%)

2. 6% Base

120 days	$128.563	(Twice 60 days)
— 3 "	3.214	(½ of 6 days)
117 "	$125.35	
3%	$ 62.68	(½ of 6%)

3. 4½% Base

40 days	$ 25.239	(½ of 80 days)
16 "	10.096	(1/5 of 80 days)
1 "	.631	
57 "	$ 35.966	
9%	$ 71.93	(Twice 4½%)

ODD INTEREST RATES.—Interest calculations other than those mentioned above are best handled by assuming a convenient base and adding or subtracting the necessary fraction to yield the desired interest rate. Thus, if interest is to be calculated at 5½%, proceed with a base of 6% and subtract 1/12 of the total (½% equals 1/12 of 6%).

Examples. Find ordinary interest on the following:

1. $1,648.97 at 6½% for 157 days.
2. $1,642.83 at 4¼% for 13 days.
3. $3,807.28 at 2½% for 73 days.

Solutions:

1. Base 6%

120 days	$32.979	(Twice 60 days)
30 "	8.245	(½ of 60 days)
6 "	1.649	
1 "	.275	
157 "	$43.148	
Add 1/12	3.596	
6½%	$46.74	

2. Base 4%

9 days	$ 1.643	
3 "	.548	(⅓ of 9 days)
1 "	.183	(⅓ of 3 days)
13 "	$ 2.374	
Add 1/16	.148	
4¼%	$ 2.52	

3. Base 6%

60 days	$38.073	
12 "	7.615	(1/5 of 60 days)
1 "	.635	
73 "	$46.323	
3%	$23.162	(½ of 6%)
Less 1/6	3.860	
2½%	$19.30	

One-Day Rule.—Another short-cut method for calculating simple interest consists of multiplying the principal by the number of days and calculating interest for one day on the product. The basis for this method lies in the interchange of principal and days. Thus the interest on $2,500 for 10 days is the same as the interest on $25,000 for 1 day. The latter principal is obtained by multiplying $2,500 by 10. This method is particularly apt where the number of days represents an aliquot part of 100 or 1,000.

Examples. Find ordinary interest on the following:

1. $2,439.55 at 3½% for 125 days.
2. $3,347.24 at 5½% for 25 days.

Solutions:

1. 8) 2439550	(125 = ⅛ of 1000)
304943.75	Principal for 1 day
$33.88	Interest for 1 day at 4% (Point off 3 places and divide by 9)
4.23	Less ⅛
$29.65	Interest at 3½%

2. 4) 334724.	(25 = ¼ of 100)
83681.	Principal for 1 day
$13.947	Interest for 1 day at 6%
1.162	Less 1/12
$12.79	Interest at 5½%

Exact Interest

NATURE OF EXACT INTEREST.—A given amount of principal earns in 365 days as much exact interest as the same principal earns in 360 days at ordinary interest. For 360 days therefore the exact interest is only 360/365 of the amount of ordinary interest. For practical purposes it is easier to compute ordinary interest first and then to adjust the result to get exact interest.

Since $360/365 = 72/73$

it is evident that exact interest is 72/73 of ordinary interest; therefore to calculate exact interest, figure ordinary interest and subtract 1/73.

Finding the Value of 1/73.—After calculating ordinary interest, the quickest way to figure 1/73, according to Schlauch and Lang (Mathematics of Business and Finance) is by use of an empirical formula as follows:

1. Take 1% of the figure representing ordinary interest.
2. Add one-third of the above.
3. Add digits of Step 2, but move them all one place to the right.
4. Repeat Step 3.
5. Add Steps 1, 2, 3, 4. The result is 1/73.

Example 1. Find the exact interest on $27,345.69 for 114 days at 3½%.

Ordinary interest, 4% Base:

90 days	.....	$273.457	
18 "	.....	54.691	(Twice 9, or 1/5 of 90)
6 "	.....	18.230	(⅓ of 18)
4% — 114 "	.....	$346.378	
Less ⅛		43.297	
3½%, ordinary		$303.081	
Less 1/73			
1%	$3.030		
1/3%	1.010		
	.101		
	.010	4.151	
Exact interest		$298.93	

Example 2. Municipal taxes in the town of X are due November 1 and may be paid without penalty up to and including November 30. Thereafter an interest penalty is charged at 7% per annum from the first due date (November 1). For a tax bill of $4,850, find the total paid to the city, if payment is made on December 11 of the same year.

Solution:

a. Elapsed time November 1 to December 11 (Fig. 1), 40 days
b. Ordinary interest, 6% base

30 days	.....	$ 24.25	(½ of 60)
10 "	.....	8.083	(⅓ of 30)
40 "	.....	$ 32.333	
Add 1/6	.....	5.389	
7%, ordinary	.....	$ 37.722	
Less 1/73	.....	.517	
Exact interest	.....	$ 37.21	
Amount of bill	.....	4,850.00	
Total paid	.....	$4,887.21	

Use of Exact Interest Tables.—Fig. 3 shows a page from a specially prepared exact interest table, taken from Schlauch and Lang (Mathematics of Business and Finance). The interest shown is for $100 of principal. By combining the number of days and interest rates, and adjusting for the principal, the interest on any amount for any number of days can be figured.

Exact Interest on $100 of Principal

No. of Days	¼%	½%	1%	1½%	2%	No. of Days
1	.000 685	.001 370	.002 740	.004 110	.005 479	1
2	.001 370	.002 740	.005 479	.008 219	.010 959	2
3	.002 055	.004 110	.008 219	.012 329	.016 438	3
4	.002 740	.005 479	.010 959	.016 438	.021 918	4
5	.003 425	.006 849	.013 699	.020 548	.027 397	5
6	.004 110	.008 219	.016 438	.024 658	.032 877	6
7	.004 795	.009 589	.019 178	.028 767	.038 356	7
8	.005 479	.010 959	.021 918	.032 877	.043 836	8
9	.006 164	.012 329	.024 658	.036 986	.049 315	9
10	.006 849	.013 699	.027 397	.041 096	.054 795	10
20	.013 699	.027 397	.054 795	.082 192	.109 589	20
30	.020 548	.041 096	.082 192	.123 288	.164 384	30
40	.027 397	.054 795	.109 589	.164 384	.219 178	40
50	.034 247	.068 493	.136 986	.205 479	.273 973	50
60	.041 096	.082 192	.164 384	.246 575	.328 767	60
70	.047 945	.095 890	.191 781	.287 671	.383 562	70
80	.054 795	.109 589	.219 178	.328 767	.438 356	80
90	.061 644	.123 288	.246 575	.369 863	.493 151	90
100	.068 493	.136 986	.273 973	.410 959	.547 945	100
110	.075 342	.150 685	.301 370	.452 055	.602 740	110
120	.082 192	.164 384	.328 767	.493 151	.657 534	120
130	.089 041	.178 082	.356 164	.534 247	.712 329	130
140	.095 890	.191 781	.383 562	.575 342	.767 123	140
150	.102 740	.205 479	.410 959	.616 438	.821 918	150
160	.109 589	.219 178	.438 356	.657 534	.876 712	160
170	.116 438	.232 877	.465 753	.698 630	.931 507	170
180	.123 288	.246 575	.493 151	.739 726	.986 301	180
190	.130 137	.260 274	.520 548	.780 822	1.041 096	190
200	.136 986	.273 973	.547 945	.821 918	1.095 890	200
210	.143 836	.287 671	.575 342	.863 014	1.150 685	210
220	.150 685	.301 370	.602 740	.904 110	1.205 479	220
230	.157 534	.315 068	.630 137	.945 205	1.260 274	230
240	.164 384	.328 767	.657 534	.986 301	1.315 068	240
250	.171 233	.342 466	.684 932	1.027 397	1.369 863	250
260	.178 082	.356 164	.712 329	1.068 493	1.424 658	260
270	.184 932	.369 863	.739 726	1.109 589	1.479 452	270
280	.191 781	.383 562	.767 123	1.150 685	1.534 247	280
290	.198 630	.397 260	.794 521	1.191 781	1.589 041	290
300	.205 479	.410 959	.821 918	1.232 877	1.643 836	300
310	.212 329	.424 658	.849 315	1.273 973	1.698 630	310
320	.219 178	.438 356	.876 712	1.315 068	1.753 425	320
330	.226 027	.452 055	.904 110	1.356 164	1.808 219	330
340	.232 877	.465 753	.931 507	1.397 260	1.863 014	340
350	.239 726	.479 452	.958 904	1.438 356	1.917 808	350
360	.246 575	.493 151	.986 301	1.479 452	1.972 603	360

FIG. 3. Illustrative Page from Exact Interest Tables

4% Interest Table

EXACT INTEREST ON 365-DAY BASIS AT 4%, BY DAYS FROM 1 TO 360 DAYS

Days	$1,000	$2,000	$3,000	$4,000	$5,000	$6,000	$7,000	$8,000	$9,000
1	.1096	.2192	.3288	.4384	.5479	.6575	.7671	.8767	.9863
2	.2192	.4384	.6575	.8767	1.0959	1.3151	1.5342	1.7534	1.9726
3	.3288	.6575	.9863	1.3151	1.6438	1.9726	2.3014	2.6301	2.9589
4	.4384	.8767	1.3151	1.7534	2.1918	2.6301	3.0685	3.5068	3.9452
5	.5479	1.0959	1.6438	2.1918	2.7397	3.2877	3.8356	4.3836	4.9315
6	.6575	1.3151	1.9726	2.6301	3.2877	3.9452	4.6027	5.2603	5.9178
7	.7671	1.5342	2.3014	3.0685	3.8356	4.6027	5.3699	6.1370	6.9041
8	.8767	1.7534	2.6301	3.5068	4.3836	5.2603	6.1370	7.0137	7.8904
9	.9863	1.9726	2.9589	3.9452	4.9315	5.9178	6.9041	7.8904	8.8767
10	1.0959	2.1918	3.2877	4.3836	5.4795	6.5753	7.6712	8.7671	9.8630
20	2.1918	4.3836	6.5753	8.7671	10.9589	13.1507	15.3425	17.5342	19.7260
30	3.2877	6.5753	9.8630	13.1507	16.4384	19.7260	23.0137	26.3014	29.5890
40	4.3836	8.7671	13.1507	17.5342	21.9178	26.3014	30.6849	35.0685	39.4521
50	5.4795	10.9589	16.4384	21.9178	27.3973	32.8767	38.3562	43.8356	49.3151
60	6.5753	13.1507	19.7260	26.3014	32.8767	39.4521	46.0274	52.6027	59.1781
70	7.6712	15.3425	23.0137	30.6849	38.3562	46.0274	53.6986	61.3699	69.0411
80	8.7671	17.5342	26.3014	35.0685	43.8356	52.6027	61.3699	70.1370	78.9041
90	9.8630	19.7260	29.5890	39.4521	49.3151	59.1781	69.0411	78.9041	88.7671
100	10.9589	21.9178	32.8767	43.8356	54.7945	65.7534	76.7123	87.6712	98.6301
110	12.0548	24.1096	36.1644	48.2192	60.2740	72.3288	84.3836	96.4384	108.4932
120	13.1507	26.3014	39.4521	52.6027	65.7534	78.9041	92.0548	105.2055	118.3562
130	14.2466	28.4932	42.7397	56.9863	71.2329	85.4795	99.7260	113.9726	128.2192
140	15.3425	30.6849	46.0274	61.3699	76.7123	92.0548	107.3973	122.7397	138.0822
150	16.4384	32.8767	49.3151	65.7534	82.1918	98.6301	115.0685	131.5068	147.9452
160	17.5342	35.0685	52.6027	70.1370	87.6712	105.2055	122.7397	140.2740	157.8082
170	18.6301	37.2603	55.8904	74.5205	93.1507	111.7808	130.4110	149.0411	167.6712
180	19.7260	39.4521	59.1781	78.9041	98.6301	118.3562	138.0822	157.8082	177.5342
190	20.8219	41.6438	62.4658	83.2877	104.1096	124.9315	145.7534	166.5753	187.3973
200	21.9178	43.8356	65.7534	87.6712	109.5890	131.5068	153.4247	175.3425	197.2603
210	23.0137	46.0274	69.0411	92.0548	115.0685	138.0822	161.0959	184.1096	207.1233
220	24.1096	48.2192	72.3288	96.4384	120.5479	144.6575	168.7671	192.8767	216.9863
230	25.2055	50.4110	75.6164	100.8219	126.0274	151.2329	176.4384	201.6438	226.8493
240	26.3014	52.6027	78.9041	105.2055	131.5068	157.8082	184.1096	210.4110	236.7123
250	27.3973	54.7945	82.1918	109.5890	136.9863	164.3836	191.7808	219.1781	246.5753
260	28.4932	56.9863	85.4795	113.9726	142.4658	170.9589	199.4521	227.9452	256.4384
270	29.5890	59.1781	88.7671	118.3562	147.9452	177.5342	207.1233	236.7123	266.3014
280	30.6849	61.3699	92.0548	122.7397	153.4247	184.1096	214.7945	245.4795	276.1644
290	31.7808	63.5616	95.3425	127.1233	158.9041	190.6849	222.4658	254.2466	286.0274
300	32.8767	65.7534	98.6301	131.5068	164.3836	197.2603	230.1370	263.0137	295.8904
310	33.9726	67.9452	101.9178	135.8904	169.8630	203.8356	237.8082	271.7808	305.7534
320	35.0685	70.1370	105.2055	140.2740	175.3425	210.4110	245.4795	280.5479	315.6164
330	36.1644	72.3288	108.4932	144.6575	180.8219	216.9863	253.1507	289.3151	325.4795
340	37.2603	74.5205	111.7808	149.0411	186.3014	223.5616	260.8219	298.0822	335.3425
350	38.3562	76.7123	115.0685	153.4247	191.7808	230.1370	268.4932	306.8493	345.2055
360	39.4521	78.9041	118.3562	157.8082	197.2603	236.7123	276.1644	315.6164	355.0685

FIG. 4. An Expanded Exact Interest Table, 4%

5% Interest Table

EXACT INTEREST ON 365-DAY BASIS AT 5%, BY DAYS FROM 1 TO 360 DAYS

Days	$1,000	$2,000	$3,000	$4,000	$5,000	$6,000	$7,000	$8,000	$9,000
1	.1370	.2740	.4110	.5749	.6849	.8219	.9589	1.0959	1.2329
2	.2740	.5479	.8219	1.0959	1.3699	1.6438	1.9178	2.1918	2.4658
3	.4110	.8219	1.2329	1.6438	2.0548	2.4657	2.8767	3.2877	3.6986
4	.5479	1.0959	1.6438	2.1918	2.7397	3.2877	3.8356	4.3836	4.9315
5	.6849	1.3699	2.0548	2.7397	3.4247	4.1096	4.7945	5.4795	6.1644
6	.8219	1.6438	2.4658	3.2877	4.1096	4.9315	5.7534	6.5753	7.3973
7	.9589	1.9178	2.8767	3.8356	4.7945	5.7534	6.7123	7.6712	8.6301
8	1.0959	2.1918	3.2877	4.3836	5.4795	6.5753	7.6712	8.7671	9.8630
9	1.2329	2.4658	3.6986	4.9315	6.1644	7.3973	8.6301	9.8630	11.0959
10	1.3699	2.7397	4.1096	5.4795	6.8493	8.2192	9.5890	10.9589	12.3288
20	2.7397	5.4795	8.2192	10.9589	13.6986	16.4384	19.1781	21.9178	24.6575
30	4.1096	8.2192	12.3288	16.4384	20.5479	24.6575	28.7671	32.8767	36.9863
40	5.4795	10.9589	16.4384	21.9178	27.3973	32.8767	38.3562	43.8356	49.3151
50	6.8493	13.6986	20.5479	27.3973	34.2466	41.0959	47.9452	54.7945	61.6438
60	8.2192	16.4384	24.6575	32.8767	41.0959	49.3151	57.5342	65.7534	73.9726
70	9.5890	19.1781	28.7671	38.3562	47.9452	57.5342	67.1233	76.7123	86.3014
80	10.9589	21.9178	32.8767	43.8356	54.7945	65.7334	76.7123	87.6712	98.6301
90	12.3288	24.6575	36.9863	49.3151	61.6438	73.9726	86.3014	98.6301	110.9589
100	13.6986	27.3973	41.0959	54.7945	68.4931	82.1918	95.8904	109.5890	123.2877
110	15.0685	30.1370	45.2055	60.2740	75.3425	90.4110	105.4795	120.5479	135.6164
120	16.4384	32.8767	49.3151	65.7534	82.1918	98.6301	115.0685	131.5068	147.9452
130	17.8082	35.6164	53.4247	71.2329	89.0411	106.8493	124.6575	142.4658	160.2740
140	19.1781	38.3562	57.5342	76.7123	95.8904	115.0685	134.2466	153.4247	172.6027
150	20.5479	41.0959	61.6438	82.1918	102.7397	123.2877	143.8356	164.3836	184.9315
160	21.9178	43.8356	65.7534	87.6712	109.5890	131.5068	153.4247	175.3425	197.2603
170	23.2877	46.5753	69.8630	93.1507	116.4384	139.7260	163.0137	186.3014	209.5890
180	24.6575	49.3151	73.9726	98.6301	123.2877	147.9452	172.6027	197.2603	221.9178
190	26.0274	52.0548	78.0822	104.1096	130.1370	156.1644	182.1918	208.2192	234.2466
200	27.3973	54.7945	82.1918	109.5890	136.9863	164.3836	191.7808	219.1781	246.5753
210	28.7671	57.5342	86.3014	115.0685	143.8356	172.6027	201.3699	230.1370	258.9041
220	30.1370	60.2740	90.4110	120.5479	150.6849	180.8219	210.9589	241.0959	271.2329
230	31.5068	63.0137	94.5205	126.0274	157.5342	189.0411	220.5479	252.0548	283.5616
240	32.8767	65.7534	98.6301	131.5068	164.3836	197.2603	230.1370	263.0137	295.8904
250	34.2466	68.4932	102.7397	136.9863	171.2329	205.4795	239.7260	273.9726	308.2192
260	35.6164	71.2329	106.8493	142.4658	178.0822	213.6986	249.3151	284.9315	320.5479
270	36.9863	73.9726	110.9589	147.9452	184.9315	221.9178	258.9041	295.8904	332.8767
280	38.3562	76.7123	115.0685	153.4247	191.7808	230.1370	268.4932	306.8493	345.2055
290	39.7260	79.4521	119.1781	158.9041	198.6301	238.3562	278.0822	317.8082	357.5342
300	41.0959	82.1918	123.2877	164.3836	205.4795	246.5753	287.6712	328.7671	369.8630
310	42.4658	84.9315	127.3973	169.8630	212.3288	254.7945	297.2603	339.7260	382.1918
320	43.8356	87.6712	131.5068	175.3425	219.1781	263.0137	306.8493	350.6849	394.5205
330	45.2055	90.4110	135.6164	180.8219	226.0274	271.2329	316.4384	361.6438	406.8493
340	46.5753	93.1507	139.7260	186.3014	232.8767	279.4521	326.0274	372.6027	419.1781
350	47.9452	95.8904	143.8356	191.7808	239.7260	287.6712	335.6164	383.5616	431.5068
360	49.3151	98.6301	147.9452	197.2603	246.5753	295.8904	345.2055	394.5205	443.8356

FIG. 5. Expanded Exact Interest Table, 5%

6% Interest Table

EXACT INTEREST ON 365-DAY BASIS AT 6%, BY DAYS FROM 1 TO 360 DAYS

Days	$1,000	$2,000	$3,000	$4,000	$5,000	$6,000	$7,000	$8,000	$9,000
1	.1644	.3288	.4932	.6575	.8219	.9863	1.1507	1.3151	1.4795
2	.3288	.6575	.9863	1.3151	1.6438	1.9726	2.3014	2.6301	2.9589
3	.4932	.9863	1.4795	1.9726	2.4658	2.9589	3.4521	3.9452	4.4384
4	.6575	1.3151	1.9726	2.6301	3.2877	3.9452	4.6027	5.2603	5.9178
5	.8219	1.6438	2.4658	3.2877	4.1096	4.9315	5.7534	6.5753	7.3973
6	.9863	1.9726	2.9589	3.9452	4.9315	5.9178	6.9041	7.8904	8.8767
7	1.1507	2.3014	3.4521	4.6027	5.7534	6.9041	8.0548	9.2055	10.3562
8	1.3151	2.6301	3.9452	5.2603	6.5753	7.8904	9.2055	10.5205	11.8356
9	1.4795	2.9589	4.4384	5.9178	7.3973	8.8767	10.3562	11.8356	13.3151
10	1.6438	3.2877	4.9315	6.5753	8.2192	9.8630	11.5068	13.1507	14.7945
20	3.2877	6.5753	9.8630	13.1507	16.4384	19.7260	23.0137	26.3014	29.5890
30	4.9315	9.8630	14.7945	19.7260	24.6575	29.5890	34.5205	39.4521	44.3836
40	6.5753	13.1507	19.7260	26.3014	32.8767	39.4521	46.0274	52.6027	59.1781
50	8.2192	16.4384	24.6575	32.8767	41.0959	49.3151	57.5342	65.7534	73.9726
60	9.8630	19.7260	29.5890	39.4521	49.3151	59.1781	69.0411	78.9041	88.7671
70	11.5068	23.0137	34.5205	46.0274	57.5342	69.0411	80.5479	92.0548	103.5616
80	13.1507	26.3014	39.4521	52.6027	65.7534	78.9041	92.0548	105.2055	118.3562
90	14.7945	29.5890	44.3836	59.1781	73.9726	88.7671	103.5616	118.3562	133.1507
100	16.4384	32.8767	49.3151	65.7534	82.1918	98.6301	115.0685	131.5068	147.9452
110	18.0822	36.1644	54.2466	72.3288	90.4110	108.4932	126.5753	144.6575	162.7397
120	19.7260	39.4521	59.1781	78.9041	98.6301	118.3562	138.0822	157.8082	177.5342
130	21.3699	42.7397	64.1096	85.4795	106.8493	128.2192	149.5890	170.9589	192.3288
140	23.0137	46.0274	69.0411	92.0548	115.0685	138.0822	161.0959	184.1096	207.1233
150	24.6575	49.3151	73.9726	98.6301	123.2877	147.9452	172.6027	197.2603	221.9178
160	26.3014	52.6027	78.9041	105.2055	131.5068	157.8082	184.1096	210.4110	236.7123
170	27.9452	55.8904	83.8356	111.7808	139.7260	167.6712	195.6164	223.5616	251.5068
180	29.5890	59.1781	88.7671	118.3562	147.9452	177.5342	207.1233	236.7123	266.3014
190	31.2329	62.4658	93.6986	124.9315	156.1644	187.3973	218.6301	249.8630	281.0959
200	32.8767	65.7534	98.6301	131.5068	164.3836	197.2603	230.1370	263.0137	295.8904
210	34.5205	69.0411	103.5616	138.0822	172.6027	207.1233	241.6438	276.1644	310.6849
220	36.1644	72.3288	108.4932	144.6575	180.8219	216.9863	253.1507	289.3151	325.4795
230	37.8082	75.6164	113.4247	151.2329	189.0411	226.8493	264.6575	302.4658	340.2740
240	39.4521	78.9041	118.3562	157.8082	197.2603	236.7123	276.1644	315.6164	355.0685
250	41.0959	82.1918	123.2877	164.3836	205.4795	246.5753	287.6712	328.7671	369.8630
260	42.7397	85.4795	128.2192	170.9589	213.6986	256.4384	299.1781	341.9178	384.6575
270	44.3836	88.7671	133.1507	177.5342	221.9178	266.3014	310.6849	355.0685	399.4521
280	46.0274	92.0548	138.0822	184.1096	230.1370	276.1644	322.1918	368.2192	414.2466
290	47.6712	95.3425	143.0137	190.6849	238.3562	286.0274	333.6986	381.3699	429.0411
300	49.3151	98.6301	147.9452	197.2603	246.5753	295.8904	345.2055	394.5205	443.8356
310	50.9589	101.9178	152.8767	203.8356	254.7945	305.7534	356.7123	407.6712	458.6301
320	52.6027	105.2055	157.8082	210.4110	263.0137	315.6164	368.2192	420.8219	473.4247
330	54.2466	108.4932	162.7397	216.9863	271.2329	325.4795	379.7260	433.9726	488.2192
340	55.8904	111.7808	167.6712	223.5616	279.4521	335.3425	391.2329	447.1233	503.0137
350	57.5342	115.0685	172.6027	230.1370	287.6712	345.2055	402.7397	460.2740	517.8082
360	59.1781	118.3562	177.5342	236.7123	295.8904	355.0685	414.2466	473.4247	532.6027

FIG. 6. Expanded Exact Interest Table, 6%

Example. Find the exact interest on $5,732.48 for 163 days at 2¾%.

Solution (Fig. 3):

	¼%	½%	2%	Total
160 days	.109589	.219178	.876712	
3 days	.002055	.004110	.016438	
163 days	.111644	.223288	.893150	$1.228082

Interest on $5,732.48 is therefore

$$57.3248 \times 1.228082 = \$70.40$$

To shorten the work involved, expanded tables may be constructed showing exact interest computations for a larger number of interest rates and a variety of principal amounts. Figs. 4, 5, and 6 are examples of such tables which can be expanded at will.

INTEREST ON U. S. GOVERNMENT SECURITIES.—Interest on bonds or notes issued by the United States government is computed on the basis of exact interest for the exact number of days falling within the interest period. Fig. 7 shows that the length of an interest period may vary from 181 days to 184 days. Consequently a table may be constructed showing the daily accrual of interest based upon the varying lengths of the interest periods. Such a table is shown in Fig. 8. This table has been constructed to conform with rules of the Treasury Department in computing interest on securities issued by the U. S. government.

Ending Dates	Ordinary Year	Leap Year
January 1 or 15	184	184
February 1 or 15	184	184
March 1 or 15	181	182
April 1 or 15	182	183
May 1 or 15	181	182
June 1 or 15	182	183
July 1 or 15	181	182
August 1 or 15	181	182
September 1 or 15	184	184
October 1 or 15	183	183
November 1 or 15	184	184
December 1 or 15	183	183

FIG. 7. Exact Number of Days in Six-Month Interest Period

To compute the interest accrual on a government security, Figs. 7 and 8 must be used together. First determine the number of days in the interest period by reference to Fig. 7. Then select the appropriate column in Fig. 8 to obtain the daily accrual per $1,000. Finally adjust the latter figure for the number of days to be accrued and for the principal amount. To illustrate:

Example 1. Find the accrued interest on November 12, 1947 on $10,000 of U. S. Treasury 2½s, interest dates March 15 and September 15.

Solution: November 12 falls in the 6-month period between September 15 and the following March 15. Reference to Fig. 7 shows that the period ending March 15 has 182 days (since 1948 is a leap year). Fig. 8 shows a daily accrual per $1,000 of $.06868132 for a 2½% bond during a 182-day period.

Rate per Annum %	Length of Period in Days			
	184	183	182	181
2	$.05434783	$.05464481	$.05494505	$.05524862
2½	.06793478	.06830601	.06868132	.06906077
2¾	.07472826	.07513661	.07554945	.07596685
3	.08152174	.08196721	.08241758	.08287293
3½	.09510870	.09562842	.09615385	.09668508
3¾	.10190217	.10245902	.10302198	.10359116
4	.10869565	.10928962	.10989011	.11049724
4⅛	.11209239	.11270492	.11332418	.11395028
4¼	.11548913	.11612022	.11675824	.11740331
4⅜	.11888587	.11953552	.12019231	.12085635
4½	.12228261	.12295082	.12362637	.12430939
4¾	.12907609	.12978142	.13049451	.13121547
5	.13586957	.13661202	.13736264	.13812155
5¼	.14266304	.14344262	.14423077	.14502762
5½	.14945652	.15027322	.15109890	.15193370
5¾	.15625000	.15710383	.15796703	.15883978
6	.16304347	.16393443	.16483516	.16574586

Fig. 8. Interest for 1 Day on $1,000 Bond, at Different Rates and Periods

From September 15 to November 12 represents 58 days (see Fig. 1). Hence the final calculation is:

$$10 \times \$.06868132 \times 58 = \$39.84$$

Example 2. Find the accrued interest on May 12, 1946 on $10,000 of U. S. Treasury 2½% bonds, interest dates March 15 and September 15.

Solution:

1. Period ending September 15 (Fig. 7) ..... 184 days
2. Daily accrual per $1,000 (Fig. 8) ..... $.06793478
3. Number of days to be accrued, March 15 to May 12 (Fig. 1)..... 58 days
4. $10 \times \$.06793478 \times 58 =$ $39.40

Note that in both illustrations, the principal, interest rate, and accrual period are the same, but the amounts accrued are different because the interest periods differ in length.

ANTICIPATION.—This is a customary term used in connection with purchase invoices which have extra dating where interest is allowed if payment is made before the expiration of the final due date of the invoice. The effect of the extra dating is to extend the time within which a proffered cash discount may be taken. Thus, if merchandise is purchased at 2%, 10 days, 90 days extra, with anticipation at 6%, a dis-

count of 2% is allowed for payment any time within 100 days. In addition, the purchaser may deduct interest for the number of days before the final due date. The exact procedure is first to find the amount payable on the last day of the discount period. From this amount is deducted **exact interest** at the stipulated anticipation rate for the number of days anticipated.

Example. An invoice is dated April 12, 1946 for $5,653.75, terms 2%, 10 days, 90 days extra, f.o.b. destination, anticipation at 6%. The purchaser paid $45.60 freight. What was the amount due if payment was made on May 22, 1946?

The number of days from April 12 to May 22 is 40. Hence, payment is anticipated 60 days. The calculation appears as follows:

Invoice	$5,653.75
Less freight paid	45.60
Net invoice	$5,608.15
Less 2% discount	112.16
Balance subject to anticipation	$5,495.99
Anticipation for 60 days at 6% (exact)	54.21
Amount payable on May 22, 1946	$5,441.78

It is the custom with some stores to compute the discount on the face of the invoice and the anticipation on the net amount after deducting the discount, finally deducting the freight charges. This plan which favors the purchaser is illustrated below:

Invoice	$5,653.75
Less 2% discount	113.08
Balance	$5,540.67
Anticipation for 60 days at 6%	54.65
Balance	$5,486.02
Less freight paid	45.60
Amount of check	$5,440.42

In computing anticipation on invoices, Figs. 9a and 9b, adapted from publications of the Controllers' Congress of the National Retail Dry Goods Association, may be used. This table shows the **exact interest** (based on a 365-day year) on $100 of principal for the indicated time and rates. Thus the interest for 60 days per $100 at 6% is $.98630. Using the first illustration above,

$$54.9599 \times \$.98630 = \underline{\$54.21}$$

In the second illustration the calculation is as follows:

$$55.4067 \times \$.98630 = \underline{\$54.65}$$

Extra dating is sometimes secured by stores as a result of certain trade customs. Invoices are frequently dated, say, 2%, 10 days, e.o.m. (end of month). This means that if an invoice is dated June 17, it is due 10 days after the end of June or July 10. Both discount and anticipation would then be allowed if payment is made before July 10.

Again, purchase orders sometimes contain conditional clauses in which "the seller agrees that merchandise shipped on or after the twenty-fifth

Anticipation Rates and Exact Interest per $100

PER ANNUM RATES

Days	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	.00274	.00548	.00822	.01096	.01370	.01644	.01918	.02192	.02466	.02740
2	.00548	.01096	.01644	.02192	.02740	.03288	.03836	.04384	.04932	.05479
3	.00822	.01644	.02466	.03288	.04110	.04932	.05753	.06575	.07397	.08219
4	.01096	.02192	.03288	.04384	.05479	.06575	.07671	.08767	.09863	.10959
5	.01370	.02740	.04110	.05479	.06849	.08219	.09589	.10959	.12329	.13699
6	.01644	.03288	.04932	.06575	.08219	.09863	.11507	.13151	.14795	.16438
7	.01918	.03836	.05753	.07671	.09589	.11507	.13425	.15342	.17260	.19178
8	.02192	.04384	.06575	.08767	.10959	.13151	.15342	.17534	.19726	.21918
9	.02466	.04932	.07397	.09863	.12329	.14795	.17260	.19726	.22192	.24658
10	.02740	.05479	.08219	.10959	.13699	.16438	.19178	.21918	.24658	.27397
11	.03014	.06027	.09041	.12055	.15068	.18082	.21096	.24110	.27123	.30137
12	.03288	.06575	.09863	.13151	.16438	.19726	.23014	.26301	.29589	.32877
13	.03562	.07123	.10685	.14247	.17808	.21370	.24932	.28493	.32055	.35616
14	.03836	.07671	.11507	.15342	.19178	.23014	.26849	.30685	.34521	.38356
15	.04110	.08219	.12329	.16438	.20548	.24658	.28767	.32877	.36986	.41096
16	.04384	.08767	.13151	.17534	.21918	.26301	.30685	.35068	.39452	.43836
17	.04658	.09315	.13973	.18630	.23288	.27945	.32603	.37260	.41918	.46575
18	.04932	.09863	.14795	.19726	.24658	.29589	.34521	.39452	.44384	.49315
19	.05205	.10411	.15616	.20822	.26027	.31233	.36438	.41644	.46849	.52055
20	.05479	.10959	.16438	.21918	.27397	.32877	.38356	.43836	.49315	.54795
21	.05753	.11507	.17260	.23014	.28767	.34521	.40274	.46027	.51781	.57534
22	.06027	.12055	.18082	.24110	.30137	.36164	.42192	.48219	.54247	.60274
23	.06301	.12603	.18904	.25205	.31507	.37808	.44110	.50411	.56712	.63014
24	.06575	.13151	.19726	.26301	.32877	.39452	.46027	.52603	.59178	.65753
25	.06849	.13699	.20548	.27397	.34247	.41096	.47945	.54795	.61644	.68493
26	.07123	.14247	.21370	.28493	.35616	.42740	.49863	.56986	.64110	.71233
27	.07397	.14795	.22192	.29589	.36986	.44384	.51781	.59178	.66575	.73973
28	.07671	.15342	.23014	.30685	.38356	.46027	.53699	.61370	.69041	.76712
29	.07945	.15890	.23836	.31781	.39726	.47671	.55616	.63562	.71507	.79452
30	.08219	.16438	.24658	.32877	.41096	.49315	.57534	.65753	.73973	.82192
31	.08493	.16986	.25479	.33973	.42466	.50959	.59452	.67945	.76438	.84932
32	.08767	.17534	.26301	.35068	.43836	.52603	.61370	.70137	.78904	.87671
33	.09041	.18082	.27123	.36164	.45205	.54247	.63288	.72329	.81370	.90411
34	.09315	.18630	.27945	.37260	.46575	.55890	.65205	.74521	.83836	.93151
35	.09589	.19178	.28767	.38356	.47945	.57534	.67123	.76712	.86301	.95890
36	.09863	.19726	.29589	.39452	.49315	.59178	.69041	.78904	.88767	.98630
37	.10137	.20274	.30411	.40548	.50685	.60822	.70959	.81096	.91233	1.01370
38	.10411	.20822	.31233	.41644	.52055	.62466	.72877	.83288	.93699	1.04110
39	.10685	.21370	.32055	.42740	.53425	.64110	.74795	.85479	.96164	1.06849
40	.10959	.21918	.32877	.43836	.54795	.65753	.76712	.87671	.98630	1.09589
41	.11233	.22466	.33699	.44932	.56164	.67397	.78630	.89863	1.01096	1.12329
42	.11507	.23014	.34521	.46027	.57534	.69041	.80548	.92055	1.03562	1.15068
43	.11781	.23562	.35342	.47123	.58904	.70685	.82466	.94247	1.06028	1.17808
44	.12055	.24110	.36164	.48219	.60274	.72329	.84384	.96438	1.08493	1.20548
45	.12329	.24658	.36986	.49315	.61644	.73973	.86301	.98630	1.10959	1.23288
46	.12603	.25205	.37808	.50411	.63014	.75616	.88219	1.00821	1.13424	1.26027
47	.12877	.25753	.38630	.51507	.64384	.77260	.90137	1.03013	1.15890	1.28767
48	.13151	.26301	.39452	.52603	.65753	.78904	.92055	1.05205	1.18356	1.31506
49	.13425	.26849	.40274	.53699	.67123	.80548	.93973	1.07397	1.20821	1.34246
50	.13699	.27397	.41096	.54795	.68493	.82192	.95890	1.09589	1.23287	1.36986

FIG. 9a. Exact Interest (basis 365-day year) at Indicated Time and Rates

Anticipation Rates and Exact Interest per $100—(Continued)

Per Annum Rates

Days	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
51	.13973	.27945	.41918	.55890	.69863	.83836	.97808	1.11780	1.25753	1.39726
52	.14247	.28493	.42740	.56986	.71233	.85479	.99726	1.14146	1.28219	1.42465
53	.14521	.29041	.43562	.58082	.72603	.87123	1.01643	1.16164	1.30684	1.45205
54	.14795	.29589	.44384	.59178	.73973	.88767	1.03561	1.18356	1.33150	1.47945
55	.15068	.30137	.45205	.60274	.75342	.90411	1.05479	1.20547	1.35616	1.50684
56	.15342	.30685	.46027	.61370	.76712	.92055	1.07397	1.22739	1.38082	1.53424
57	.15616	.31233	.46849	.62466	.78082	.93699	1.09315	1.24931	1.40547	1.56164
58	.15890	.31781	.47671	.63562	.79452	.95342	1.11232	1.27123	1.43013	1.58904
59	.16164	.32329	.48493	.64658	.80822	.96986	1.13150	1.29315	1.45479	1.61643
60	.16438	.32877	.49315	.65753	.82192	.98630	1.15068	1.31506	1.47945	1.64383
61	.16712	.33425	.50137	.66849	.83562	1.00274	1.16986	1.33698	1.50410	1.67123
62	.16986	.33973	.50959	.67945	.84932	1.01918	1.18904	1.35890	1.52876	1.69863
63	.17260	.34521	.51781	.69041	.86301	1.03562	1.20821	1.38082	1.55342	1.72602
64	.17534	.35068	.52603	.70137	.87671	1.05205	1.22739	1.40273	1.57808	1.75342
65	.17808	.35616	.53425	.71233	.89041	1.06849	1.24657	1.42465	1.60273	1.78082
66	.18082	.36164	.54247	.72329	.90411	1.08493	1.26573	1.44657	1.62739	1.80821
67	.18356	.36712	.55068	.73425	.91781	1.10137	1.28493	1.46849	1.65205	1.83561
68	.18630	.37260	.55890	.74521	.93151	1.11781	1.30410	1.49041	1.67671	1.86301
69	.18904	.37808	.56712	.75616	.94521	1.13425	1.32328	1.51231	1.70136	1.89041
70	.19178	.38356	.57534	.76712	.95890	1.15068	1.34246	1.53424	1.72602	1.91780
71	.19452	.38904	.58356	.77808	.97260	1.16712	1.36164	1.55616	1.75068	1.94520
72	.19726	.39452	.59178	.78904	.98630	1.18356	1.38082	1.57808	1.77534	1.97260
73	.20000	.40000	.60000	.80000	1.00000	1.20000	1.40000	1.60000	1.80000	2.00000
74	.20274	.40548	.60822	.81096	1.01370	1.21644	1.41917	1.62191	1.82465	2.02739
75	.20548	.41096	.61644	.82192	1.02740	1.23288	1.43835	1.64383	1.84931	2.05479
76	.20822	.41644	.62466	.83288	1.04110	1.24931	1.45753	1.66575	1.87397	2.08219
77	.21096	.42192	.63288	.84384	1.05479	1.26575	1.47671	1.68767	1.89863	2.10958
78	.21370	.42740	.64110	.85479	1.06849	1.28219	1.49589	1.70958	1.92328	2.13698
79	.21644	.43288	.64932	.86575	1.08219	1.29863	1.51506	1.73150	1.94794	2.16438
80	.21918	.43836	.65753	.87671	1.09589	1.31507	1.53424	1.75342	1.97620	2.19183
81	.22192	.44384	.66575	.88767	1.10959	1.33151	1.55342	1.77534	1.99726	2.21917
82	.22466	.44932	.67397	.89863	1.12329	1.34794	1.57260	1.79726	2.02191	2.24657
83	.22740	.45479	.68219	.90959	1.13699	1.36438	1.59178	1.81917	2.04657	2.27397
84	.23014	.46027	.69041	.92055	1.15068	1.38082	1.61095	1.84109	2.07123	2.30136
85	.23288	.46575	.69863	.93151	1.16438	1.39726	1.63013	1.86301	2.09589	2.32876
86	.23562	.47123	.70685	.94247	1.17808	1.41370	1.64931	1.88493	2.12054	2.35616
87	.23836	.47671	.71507	.95342	1.19178	1.43014	1.66849	1.90684	2.14520	2.38356
88	.24110	.48219	.72329	.96438	1.20548	1.44657	1.68767	1.92876	2.16986	2.41095
89	.24384	.48767	.73151	.97534	1.21918	1.46301	1.70684	1.95068	2.19452	2.43835
90	.24658	.49315	.73973	.98630	1.23288	1.47945	1.72602	1.97260	2.21917	2.46575

Fig. 9b. Exact Interest (basis 365-day year) at Indicated Time and Rates

of a month, will be billed as of the first of the following month." Thus, merchandise shipped on April 26, terms 2%, 10 days, is billed as of May 1, with discount and anticipation available until May 10. Ordinarily the anticipation may not amount to much because of the short time. However, if the above quoted clause is coupled with e.o.m. dating, the effect is to secure an extra month's dating. In short, if goods are shipped on April 26, terms 2%, 10 days, e.o.m., and the purchase order contains the above billing clause, the invoice becomes due on June 10, that is, 10

days after the first of the month in which the invoice would otherwise fall due.

Bank Discount

LOANS AND DISCOUNTS DEFINED.—One of the important functions of a commercial bank is the making of loans. These loans produce a source of income for the bank and fill a necessary function in the economic life of the community served by the bank. Technically loans are distinguished from discounts chiefly by the fact that, in the case of loans, interest is paid periodically, during the existence of the loan or at its maturity, while in the case of discounts the interest or "discount" is deducted at the time the advance is made. Thus, in the case of a $1,000 loan at 6% for 6 months, the borrower receives $1,000 and pays back $1,030, while on the other hand, if he discounts a $1,000 note at 6%, he receives $970 and pays back $1,000. In short, bank discount is the consideration deducted by the bank from the face of a note or draft prior to its maturity date.

From a mathematical viewpoint, the difference in terminology between loans and discounts is not important. Interest is charged in either case, and whether it is called interest or discount does not matter, since the same formula governs the computation.

TYPES OF NOTES.—Notes may be variously classified, but for computation purposes it is necessary only to know whether a note is interest-bearing or noninterest-bearing (Figs. 10 and 11).

In discounting a note, the bank pays only what the note is worth at the time of discount. Thus a noninterest-bearing note is worth its face value at maturity and not before. Hence, any time before maturity the note is valued at less than face value by the amount of interest the bank charges. An interest-bearing note, however, provided the interest and discount rates are the same, is worth approximately its face value on the date of issue, and thereafter increases in value each day by the amount of interest earned until maturity.

$3400 $^{00}/_{100}$ *New York April 2* 19____

Two (2) months AFTER DATE *I* PROMISE TO PAY TO

THE ORDER OF *Barrow & Co.*

Thirty-four hundred and $^{00}/_{100}$ ~~~~~~~~~~~~~~ DOLLARS

AT *Irving Trust Co. with interest @ 5%*

VALUE RECEIVED

No. *1* DUE *June 2 19*____ *J. Doe*

FIG. 10. Interest-Bearing Promissory Note

$ 500 00/100 — New York May 15 19__

Twenty (20) days AFTER DATE I PROMISE TO PAY TO

THE ORDER OF J. Doe

Five hundred and 00/100 ~~~~~~~~~~~~~~~~~~~~ DOLLARS

AT Irving Trust Co.

VALUE RECEIVED

No. 273 — R. Roe

FIG. 11. Noninterest-Bearing Promissory Note

The amount which a bank pays for a note or which it credits to a borrower's account is called the **proceeds** of the note.

BASIS FOR CALCULATING PROCEEDS.—Because most banks are unwilling or are precluded by law from accepting commercial paper running for more than 90 or at most 120 days, the method of figuring discount or interest is that of **simple interest.** Ordinarily, banks use the actual number of days in figuring the discount period, but interest or discount is computed on the basis of a 360-day year (ordinary interest). In the case of the Federal Reserve system, **exact** interest is used.

In Arkansas, Kentucky, Louisiana, Maryland, in the large cities of Missouri, in North Carolina, Pennsylvania, Utah, and Virginia, both the date of maturity and the date of discount are included in the term of discount.

DUE DATE OF NOTES.—Promissory notes are payable at a stated number of either days or months after date. In the case of **drafts,** a draft may be payable so many days after date or after sight. Where days are specified, the exact number of days is counted. Thus, if the note states "sixty days after date . . . " and is dated May 14, it is due July 13 (see Fig. 1). However, when months are specified, the note falls due in the month of maturity on the same date as is specified in the date of the note. For example, a note dated May 14 due in 2 months is due on July 14.

If a note is dated on the last day of a 31-day month, and falls due in a 30-day month, the due date would be due the last day of the 30-day month. To illustrate, a note dated May 31, due in four months, matures on September 30. But a note dated May 31, due in 120 days, is payable September 28. In Mississippi and Texas, commercial instruments falling due on Sunday or a legal holiday are payable the preceding day; in all other states they are payable on the succeeding business day.

COMPUTING PROCEEDS AND DISCOUNT ON NONINTEREST-BEARING PAPER.—Three steps are necessary to calculate the proceeds or deposit credit:

1. Calculate the time from the discount date to maturity.
2. Compute the interest to maturity for the time computed in Step 1. This is the discount.
3. Deduct the discount from the face value.

Example 1. To find the proceeds or deposit credit on a note for $1,875, dated July 5, for 30 days, discounted at 4% on the date of issue.

The note is due August 4, that is, 30 days from July 5.

Face value of note	$1,875.00
Discount, 30 days, 4% on $1,875	6.25
Proceeds	$1,868.75

Example 2. A note for $2.863.79 dated February 8, 1946, due in 60 days, is discounted on March 2 at 4½%.

Maturity date		April 9, 1946
Time to maturity (March 2 to April 9)		38 days
Face value		$2,863.79
Discount on above for 38 days at 4½%:		
40 days	$14.319	
2 days (¼ of 8 days)	.716	
38 days		13.60
Proceeds		$2,850.19

DISCOUNTING INTEREST-BEARING PAPER.—The general rule in discounting interest-bearing paper is to compute the maturity value and then to discount the maturity value. In calculating the maturity value, the interest from the date of the note to maturity is added to the face value. Next the discount is computed for the discount period and deducted from the maturity value.

Example. Find the proceeds on a 5% note for $5,350, dated August 12, 1946, due in 3 months, and discounted on September 27, 1946 at 4%.

Maturity date	November 12, 1946
Maturity value:	
1. Face value	$5,350.00
2. Interest August 12 to November 12 (92 days on $5,350 at 5%)	68.36
Maturity value	$5,418.36
Discount from September 27 to November 12 (46 days, 4%)	27.69
Proceeds	$5,390.67

FINDING PRINCIPAL TO YIELD GIVEN PROCEEDS.—Occasionally it becomes necessary to reverse the above process; that is, a debtor wishes to borrow enough so that the proceeds will exactly cover the net amount of an invoice which is to be paid. Thus the face value of the note is unknown. If the note is **noninterest-bearing,** the face value to yield the given proceeds is found by dividing the given proceeds by the proceeds of $1. The expression "proceeds of one dollar" means one dollar minus the interest or discount.

Example. A merchant arranges to pay for a shipment by borrowing the exact amount required to pay the invoice. The net amount of the invoice

is $5,960.34 and the bank agrees to discount the merchant's note at 4% for 120 days.

I. Proceeds of $1 for 120 days at 4% =
$1 − $.01⅓ = $.98⅔

II. $\frac{\text{Given proceeds}}{\text{Proceeds of \$1}} = \frac{\$5,960.34}{.98\frac{2}{3}}$

$= \frac{\$17,881.02}{2.96} = \underline{\underline{\$6,040.89}}$

Proof:

Face value		$6,040.89
Interest 120 days at 4%:		
90 days	$60.409	
30 days	20.136	80.55
		$5,960.34

COMPUTATION OF INTEREST UNDER PARTIAL PAYMENT PLANS.—When a short-term indebtedness is reduced through periodic payments, the interest is computed upon either one of two bases. The basis used commonly among business men is known as the **"Merchant's Rule."** This method gives the results more quickly but not as accurately as the computation under the other, the **"United States Rule."**

The Merchant's Rule.—In following the Merchant's Rule, the interest is computed upon the total indebtedness from the date of inception to the date of maturity, and the interest earned from the date that each partial payment is made to the date of maturity of the debt is deducted therefrom.

Example. The following payments were made on a $16,500, 6% note, dated June 22, 1946, due in 6 months:

October 20, 1946	$ 300
November 15, 1946	3,500

What is the amount due at maturity?

Solution:

June 22	Face value		$16,500.00
December 22	Interest at 6% on above, June 22 to December 22 = 183 days		503.25
	Maturity value of note		$17,003.25
October 20	First payment	$ 300.00	
	Interest on above October 20 to December 22 = 63 days	3.15	
November 15	Second payment	3,500.00	
	Interest on above November 15 to December 22 = 37 days	21.58	
	Total credits		3,824.73
December 22	Maturity-Balance due		$13,178.52

The United States Rule.—Under the United States Rule, each instalment is first applied against the interest due at the date the partial payment is made, and the balance of the instalment is then applied to reduce the principal. Interest is always computed upon the reduced

principal. In case a partial payment is insufficient to cover the accrued interest, it is held in suspense. There is no reduction of principal until the suspended payment together with subsequent payments exceeds the accrued interest. Using the same figures as in the example for the Merchant's Rule, the solution appears as follows:

June 22	Face value		$16,500.00
October 20	First payment	$ 300.00	
	Interest on $16,500 for 120 days (June 22 to October 20)	330.00	
	Reduction of principal		—0—
November 15	Second payment	$3,500.00	
	Add first payment	300.00	
	Total	$3,800.00	
	Interest on $16,500 for 146 days (June 22 to November 15)	401.50	
	Reduction of principal		3,398.50
	Balance due		$13,101.50
December 22	Maturity		
	Interest on $13,101.50 for 37 days (November 15 to December 22)		80.79
			$13,182.29

BANK DISCOUNT VS. TRUE DISCOUNT.—In a discounting operation, the interest charge, as in the case of noninterest-bearing notes, is taken out in advance. Thus the borrower receives the maturity value minus the discount. He is paying interest calculated on the maturity value for the use of a smaller sum, the proceeds. A 60-day note for $1,000, discounted at 6%, yields $990 proceeds. The borrower pays $10 for the use of $990, which is therefore more than 6%. The discount calculated as above is called bank discount. So-called true discount is an interest charge based on the **present value** of the note, that is, on a sum which at the discount rate would produce the face value of the note. To find the present value of a note, it is necessary merely to divide the maturity value by the amount of $1 (at the given rate and for the given time). The "amount of $1" means one dollar plus the interest.

Example. Find the proceeds and present value of a note for $5,632.50, dated June 22, 1946, due in 90 days, and discounted at 4½% on July 27, 1946.

I. Proceeds

The note is due September 20, 1946 (Fig. 1)			
Maturity value (since this is a noninterest-bearing note)			$5,632.50
Discount at 4½% for 55 days; i.e., from July 27 to September 20 (Fig. 2):			
40 days	$28.163	(½ of 80 days)	
10 days	7.041	(¼ of 40 days)	
5 days	3.520	(½ of 10 days)	
55 days	$38.72		
			38.72
Proceeds			$5,593.78

II. Present Value

1. Maturity value		$5,632.50
2. Amount of $1 at 4½% for 55 days:		
(Using one-day rule, find the interest on $55 for 1 day at 4½%)		
.055 ÷ 8 =	.006⅞	
Add	$1.000	
Amount of $1		1.006⅞
3. Present value		
$5,632.50 ÷ 1.006⅞ = 45060 ÷ 8.055		$5,594.04

In the above problem the bank discount is $38.72; the true discount is $38.46 (i.e., $5,632.50 − $5,594.04). This means that if $5,594.04 is invested for 55 days at 4½% it should produce $5,632.50.

PROOF:

Present value		$5,594.04
Interest on above at 4½% for 55 days:		
40	$27.970	
10	6.993	
5	3.497	
55		38.46
Maturity value		$5,632.50

Relation of Bank Discount Rate to True Discount Rate.—Since the bank discount is based on a larger sum than the borrower receives, he evidently pays more than the indicated rate of interest. To discover the true interest rate, it is necessary to express the bank discount as a percentage of the proceeds, assuming the loan ran for one year. Actually, the time a loan runs and the amount are immaterial, since the calculation can be put on a unit dollar basis. The illustration below is taken from Schlauch and Lang (Mathematics of Business and Finance).

Example. A note for $10,000, due in 4 months, is discounted at 6%. What is the equivalent annual interest charge?

Solution: (a) Here it is necessary to compute the annual discount, that is, treat the note as if it had one year to run; thus:

Maturity value	$10,000.00
Discount 6%, one year	600.00
Proceeds	$ 9,400.00

The borrower, in effect, pays $600 for the use of $9,400 for a year. Hence the interest rate is

$$\frac{600}{9{,}400} = .0683 = 6.383\%$$

Solution: (b) By putting the calculation on a unit dollar basis a general formula may be derived as follows:

Maturity value	$1.00
Discount	.06
Proceeds	$ .94

$$\text{Interest rate} = \frac{.06}{.94} = .06383 = 6.383\%$$

Let d = Discount rate; this will also equal the amount of discount in one year
Then $1 - d$ = Proceeds of \$1 due in one year
r = Interest rate

$$\text{Hence } r = \frac{d}{1 - d}$$

In the above problem, substitution in the formula yields

$$\frac{.06}{.94} = 6.383\%$$

Thus a discount rate of 6% is equal to an annual interest charge of 6.383% approximately. To convert one into the other, it is not necessary to know anything about a particular loan transaction except the discount rate.

Chain Discounts

DEFINITION OF CHAIN DISCOUNT.—Chain discounts are two or more discounts which are applied in succession to a quoted price. The latter is usually referred to as the list price, that is, the price at which the item is listed in the manufacturer's or jobber's catalog. Each discount is applied to the net amount remaining after the previous discount has been taken. For example, an article quoted at \$25 less 30 and 10, means \$25 less 30%, and then less 10% on the diminished amount.

List price	\$25.00
Less first discount—30%	7.50
Balance	\$17.50
Less second discount—10%	1.75
Net price	\$15.75

Where many chain discounts are involved in connection with a given list price, the above method may be cumbersome. An alternative method is to multiply the list price by the net cost factors, that is, the percentage remaining after deducting the chain discount from 100%. Thus, in the above example, the purchaser pays

$$\$25 \times 70\% \times 90\% = 25 \times .63 = \$15.75.$$

FINDING EQUIVALENT SINGLE DISCOUNT.—It is often convenient to convert chain discounts into equivalent single discounts. According to Schlauch and Lang (Mathematics of Business and Finance), to find an equivalent single discount rate equal to two chain discounts, add the discounts and subtract their product.

Examples. Find single discounts equal to chain discounts of:

1. 40 and 30
2. 20 and 20
3. 15 and 10
4. 20 and 5
5. 10 and 5

Solutions:

1.	2.	3.	4.	5.
.40	.20	.15	.20	.10
+.30	+.20	+.10	+.05	+.05
.70	.40	.25	.25	.15
−.12	−.04	−.015	−.01	−.005
.58	.36	.235	.24	.145
58%	36%	23.5%	24%	14.5%

In practice, the decimal points are not put in, in order to speed up the work. Thus problem 5 above would be solved: $10 + 5 = 15$, minus $.5 = 14.5\%$. In fact, these problems can and should be done mentally.

The same rule may be applied to three or more chain discounts, provided only two discounts are taken at a time. The order in which the discounts are taken is immaterial.

Examples. Find equivalent single discounts for the following:

6. 40, 20, and 10
7. 30, 10, and 5
8. 20, 5, and 5
9. 15, 5, and 2

Solutions:

6.	7.	8.	9.
40	30	20	15
+20	+10	+ 5	+ 5
60	40	25	20
− 8	− 3	− 1	− .75
52	37	24	19.25
+10	+ 5	+ 5	+ 2
62	42	29	21.25
− 5.2	− 1.85	− 1.2	− .385
56.8%	40.15%	27.8%	20.865%

NET COST FACTOR TABLES.—Tables showing net cost factors resulting from the application of chain discounts are sometimes available. No such table can be complete, since the variety and combinations of discounts are infinite. As a matter of fact, each concern may construct its own tables based upon the most common combinations of discounts encountered by it. Fig. 12, taken from Lang and Schlauch (Selected Tables), represents a sample page of such a table. Its application is illustrated below.

Example 1. Find the net cost of an article listed at $64.50 subject to discounts of 15, 10, and 5%.

In Fig. 12, run down the 15% column to a point opposite 10 and 5. The net cost factor is .726750. Hence the net cost of the article is

$$\$64.50 \times .726750 = \$46.88$$

Example 2. Find the net cost of an article listed at $83.25 less 20, 15, and 10%.

Fig. 12 does not show that particular combination of discounts. From the 15% column, the 15 and 10 combination may be used as a first step, or the 20 and 10 combination may be used from the 20% column. Using the latter the net cost for 20 and 10 is .720. Hence,

$$\$83.25 \times .72 = \$59.94$$

This amount is subject to a further discount of 15% or a net cost factor of 85%.

$$\$59.94 \times .85 = \$50.95$$

Note that the order in which the discounts are taken is immaterial.

Net Cost Factors Resulting from Application of Chain Discounts

	10%	12½%	15%	16⅔%
Net	.900 000	.875 000	.850 000	.833 333
And 2½	.877 500	.853 125	.828 750	.812 500
And 5	.855 000	.831 250	.807 500	.791 667
5 and 2½	.833 625	.810 469	.787 312	.771 875
5 and 5	.812 250	.789 687	.767 125	.752 083
5, 5, and 2½	.791 944	.769 945	.747 947	.733 281
And 7½	.832 500	.809 375	.786 250	.770 833
7½ and 2½	.811 687	.789 141	.766 594	.751 562
7½ and 5	.790 875	.768 906	.746 937	.732 292
And 10	.810 000	.787 500	.765 000	.750 000
10 and 2½	.789 750	.767 812	.745 875	.731 250
10 and 5	.769 500	.748 125	.726 750	.712 500
10, 5, and 2½	.750 262	.729 422	.708 581	.694 687
10 and 10	.729 000	.708 750	.688 500	.675 000
10, 10, and 2½	.710 775	.691 031	.671 287	.658 125
10, 10, and 5	.692 550	.673 312	.654 075	.641 250
10, 10, 5, and 2½	.675 236	.656 480	.637 723	.625 219
10, 10, and 10	.656 100	.637 875	.619 650	.607 500

	20%	22½%	25%	27½%
Net	.800 000	.775 000	.750 000	.725 000
And 2½	.780 000	.755 625	.731 250	.706 875
And 5	.760 000	.736 250	.712 500	.688 750
5 and 2½	.741 000	.717 844	.694 687	.671 531
5 and 5	.722 000	.699 437	.676 875	.654 312
5, 5, and 2½	.703 950	.681 952	.659 953	.637 955
And 7½	.740 000	.716 875	.693 750	.670 625
7½ and 2½	.721 500	.698 953	.676 406	.653 859
7½ and 5	.703 000	.681 031	.659 062	.637 094
And 10	.720 000	.697 500	.675 000	.652 500
10 and 2½	.702 000	.680 062	.658 125	.636 187
10 and 5	.684 000	.662 625	.641 250	.619 875
10, 5, and 2½	.666 900	.646 059	.625 219	.604 378
10 and 10	.648 000	.627 750	.607 500	.587 250
10, 10, and 2½	.631 800	.612 056	.592 312	.572 569
10, 10, and 5	.615 600	.596 362	.577 125	.557 887
10, 10, 5, and 2½	.600 210	.581 453	.562 697	.543 940
10, 10, and 10	.583 200	.564 975	.546 750	.528 525

FIG. 12. Typical Page of a Net Cost Factor Table

Compound Interest

COMPOUND INTEREST DEFINITIONS.—In compound interest calculations, the interest is computed at the end of each fiscal period and added to the principal at the beginning, the total representing the new principal on the basis of which a new interest calculation is made. Compound interest may therefore be defined as that form of interest in which the interest for each period is added to the principal. Because of the fact that interest is added to the principal, and interest for the next period is calculated on the new total, interest is said to be **converted** into principal.

The time for which interest is calculated and converted is known as the **conversion period.** It represents the elapsed time between two successive interest dates. The time, that is, the conversion period, may be a month, or a quarterly, semiannual, or annual period, or any other convenient time period.

The conversion period is sometimes referred to as an **accumulation period** because the principal accumulates, that is, it increases by the amount of interest added to the principal. No such term was necessary in the case of simple interest, because the interest was not converted but always computed on the original principal. But in compound interest, the interest is computed on an ever-increasing amount, because of the repeated addition to the existing principal.

FINDING THE COMPOUND AMOUNT.—Several methods are available for finding the compound amount.

1. By arithmetic.
2. By formula.

Arithmetical Solution.—Find the compound amount on $1,500 for 3 years at 6% per annum, compounded semiannually.

Investment	$1,500.00
Interest 6 months, $1,500 at 3%	45.00
Amount at end of first 6 months	$1,545.00
Interest 6 months, $1,545 at 3%	46.35
Amount at end of second 6 months	$1,591.35
Interest 6 months, $1,591.35 at 3%	47.74
Amount at end of third 6 months	$1,639.09
Interest 6 months, $1,639.09 at 3%	49.17
Amount at end of fourth 6 months	$1,688.26
Interest 6 months, $1,688.26 at 3%	50.65
Amount at end of fifth 6 months	$1,738.91
Interest 6 months, $1,738.91 at 3%	52.17
Compound amount at end of 3 years	$1.791.08

Solution by Formula.—If the principal amount is reduced to unity, say $1, the above can be restated as follows:

Investment	$1.00
Interest 6 months, $1 at 3% or	.03
Amount at end of first 6 months	$1.03
Interest 6 months, $1.03 at 3%	.0309

Amount at end of second 6 months	$1.0609
Interest 6 months, $1.0609 at 3%	.031827
Amount at end of third 6 months	$1.092727
Interest 6 months, $1.092727 at 3%	.032782
Amount at end of fourth 6 months	$1.125509
Interest 6 months, $1.125509 at 3%	.033765
Amount at end of fifth 6 months	$1.159274
Interest 6 months, $1.159274 at 3%	.034778
Compound amount at end of 3 years	$1.194052

It is obvious therefore that if the rate of interest per period is represented by i, the statement immediately above may be recast as follows:

Compound amount at end of	first	6	months	$1.03	$= (1 + i)$
"	"	"	"	second	6	"	1.0609	$= (1 + i)^2$
"	"	"	"	third	6	"	1.092727	$= (1 + i)^3$
"	"	"	"	fourth	6	"	1.125509	$= (1 + i)^4$
"	"	"	"	fifth	6	"	1.159274	$= (1 + i)^5$
"	"	"	"	sixth	6	"	1.194052	$= (1 + i)^6$

Thus the compound amount of $1,500 for 3 years at 6%, converted semiannually, is

$$\$1{,}500 \times 1.194052 = \$1{,}791.08$$

The difference between the compound amount and the original principal is the compound interest.

Compound amount, end of 3 years	$1,791.08
Principal at beginning	1,500.00
Compound interest	$ 291.08

Similarly for n periods the compound amount for $1 is $s = (1 + i)^n$. In this formula

s = Compound amount of $1
i = Interest rate
n = Number of periods

The compound amount of any given number of dollars can then be found easily by multiplying the principal by the value of $(1 + i)^n$. In general terms,

$$A = P\,(1 + i)^n$$

where A = Compound amount of any number of dollars
P = Any principal amount

Value of $(1 + i)^n$ from Prepared Tables.—The arithmetical method for finding the compound amount is obviously too cumbersome. The formula may be solved either through the use of prepared tables or by logarithms. Figs. 13a, 13b, 13c, and 13d give the compound amount of $1 for every period from one to fifty, for various interest rates. The use of the table is illustrated below.

Example. Find the compound amount of $2,634.56 for 12 years at 3½%.

$$A = P \times (1 + i)^n$$
$$= \$2{,}634.56 \times 1.035^{12}$$

Compound Amount Tables

FIG. 13a. AMOUNT OF 1. $s = (1 + i)^n$

n	½%	1%	1¼%	1½%	1¾%
1	1.005 0000	1.010 0000	1.012 5000	1.015 0000	1.017 5000
2	1.010 0250	1.020 1000	1.025 1562	1.030 2250	1.035 3062
3	1.015 0751	1.030 3010	1.037 9707	1.045 6784	1.053 4241
4	1.020 1505	1.040 6040	1.050 9453	1.061 3636	1.071 8590
5	1.025 2512	1.051 0100	1.064 0822	1.077 2840	1.090 6166
6	1.030 3775	1.061 5202	1.077 3832	1.093 4433	1.109 7024
7	1.035 5294	1.072 1354	1.090 8505	1.109 8449	1.129 1222
8	1.040 7070	1.082 8567	1.104 4861	1.126 4926	1.148 8818
9	1.045 9106	1.093 6853	1.118 2922	1.143 3900	1.168 9872
10	1.051 1401	1.104 6221	1.132 2708	1.160 5408	1.189 4445
11	1.056 3958	1.115 6684	1.146 4242	1.177 9489	1.210 2598
12	1.061 6778	1.126 8250	1.160 7545	1.195 6182	1.231 4393
13	1.066 9862	1.138 0933	1.175 2640	1.213 5524	1.252 9895
14	1.072 3211	1.149 4742	1.189 9548	1.231 7557	1.274 9168
15	1.077 6827	1.160 9690	1.204 8292	1.250 2321	1.297 2279
16	1.083 0712	1.172 5786	1.219 8896	1.268 9856	1.319 9294
17	1.088 4865	1.184 3044	1.235 1382	1.288 0203	1.343 0281
18	1.093 9289	1.196 1475	1.250 5774	1.307 3406	1.366 5311
19	1.099 3986	1.208 1090	1.266 2096	1.326 9508	1.390 4454
20	1.104 8956	1.220 1900	1.282 0372	1.346 8550	1.414 7782
21	1.110 4201	1.232 3919	1.298 0627	1.367 0578	1.439 5368
22	1.115 9722	1.244 7159	1.314 2885	1.387 5637	1.464 7287
23	1.121 5520	1.257 1630	1.330 7171	1.408 3772	1.490 3615
24	1.127 1598	1.269 7346	1.347 3510	1.429 5028	1.516 4428
25	1.132 7956	1.282 4320	1.364 1929	1.450 9454	1.542 9805
26	1.138 4596	1.295 2563	1.381 2454	1.472 7095	1.569 9827
27	1.144 1518	1.308 2089	1.398 5109	1.494 8002	1.597 4574
28	1.149 8726	1.321 2910	1.415 9923	1.517 2222	1.625 4129
29	1.155 6220	1.334 5039	1.433 6922	1.539 9805	1.653 8576
30	1.161 4001	1.347 8489	1.451 6134	1.563 0802	1.682 8001
31	1.167 2071	1.361 3274	1.469 7585	1.586 5264	1.712 2491
32	1.173 0431	1.374 9407	1.488 1305	1.610 3243	1.742 2135
33	1.178 9083	1.388 6901	1.506 7321	1.634 4792	1.772 7022
34	1.184 8029	1.402 5770	1.525 5663	1.658 9964	1.803 7245
35	1.190 7269	1.416 6028	1.544 6359	1.683 8813	1.835 2897
36	1.196 6805	1.430 7688	1.563 9438	1.709 1395	1.867 4073
37	1.202 6639	1.445 0765	1.583 4931	1.734 7766	1.900 0869
38	1.208 6772	1.459 5272	1.603 2868	1.760 7983	1.933 3384
39	1.214 7206	1.474 1225	1.623 3279	1.787 2102	1.967 1718
40	1.220 7942	1.488 8637	1.643 6195	1.814 0184	2.001 5973
41	1.226 8982	1.503 7524	1.664 1647	1.841 2287	2.036 6253
42	1.233 0327	1.518 7899	1.684 9668	1.868 8471	2.072 2662
43	1.239 1979	1.533 9778	1.706 0288	1.896 8798	2.108 5309
44	1.245 3938	1.549 3176	1.727 3542	1.925 3330	2.145 4302
45	1.251 6208	1.564 8108	1.748 9461	1.954 2130	2.182 9752
46	1.257 8789	1.580 4588	1.770 8080	1.983 5262	2.221 1773
47	1.264 1683	1.596 2634	1.792 9431	2.013 2791	2.260 0479
48	1.270 4892	1.612 2261	1.815 3548	2.043 4783	2.299 5987
49	1.276 8416	1.628 3483	1.838 0468	2.074 1305	2.339 8417
50	1.283 2258	1.644 6318	1.861 0224	2.105 2424	2.380 7889
60	1.348 8502	1.816 6967	2.107 1814	2.443 2198	2.831 8163
70	1.417 8305	2.006 7634	2.385 9000	2.853 4563	3.368 2883
80	1.490 3386	2.216 7152	2.701 4849	3.290 6628	4.006 3919
90	1.566 5547	2.448 6327	3.058 8126	3.818 9485	4.765 3808
100	1.646 6685	2.704 8138	3.463 4043	4.432 0456	5.668 1559

Compound Amount Tables—(Continued)

FIG. 13b. AMOUNT OF 1. $s = (1 + i)^n$

n	2 %	2⅛ %	2¼ %	2⅜ %	2½ %
1	1.020 0000	1.021 2500	1.022 5000	1.023 7500	1.025 0000
2	1.040 4000	1.042 9516	1.045 5062	1.048 0641	1.050 6250
3	1.061 2080	1.065 1143	1.069 0301	1.072 9556	1.076 8906
4	1.082 4322	1.087 7480	1.093 0833	1.098 4383	1.103 8129
5	1.104 0808	1.110 8626	1.117 6777	1.124 5262	1.131 4082
6	1.126 1624	1.134 4684	1.142 8254	1.151 2337	1.159 6934
7	1.148 6857	1.158 5759	1.168 5390	1.178 5755	1.188 6858
8	1.171 6594	1.183 1956	1.194 8311	1.206 5666	1.218 4029
9	1.195 0926	1.208 3385	1.221 7148	1.235 2226	1.248 8630
10	1.218 9944	1.234 0157	1.249 2034	1.264 5592	1.280 0845
11	1.243 3743	1.260 2386	1.277 3105	1.294 5924	1.312 0867
12	1.268 2418	1.287 0186	1.306 0500	1.325 3390	1.344 8888
13	1.293 6066	1.314 3678	1.335 4361	1.356 8158	1.378 5110
14	1.319 4788	1.342 2981	1.365 4834	1.389 0402	1.412 9738
15	1.345 8683	1.370 8219	1.396 2068	1.422 0299	1.448 2982
16	1.372 7857	1.399 9519	1.427 6215	1.445 8031	1.484 5056
17	1.400 2414	1.429 7009	1.459 7429	1.490 3784	1.521 6183
18	1.428 2462	1.460 0820	1.492 5872	1.525 7749	1.559 6587
19	1.456 8112	1.491 1088	1.526 1704	1.562 0120	1.598 6502
20	1.485 9474	1.522 7948	1.560 5092	1.599 1098	1.638 6164
21	1.515 6663	1.555 1542	1.595 6207	1.637 0887	1.679 5818
22	1.545 9797	1.588 2012	1.631 5221	1.675 9696	1.721 5714
23	1.576 8993	1.621 9505	1.668 2314	1.715 7738	1.764 6107
24	1.608 4372	1.656 4170	1.705 7666	1.756 5235	1.808 7260
25	1.640 6060	1.691 6158	1.744 1463	1.798 2409	1.853 9441
26	1.673 4181	1.727 5627	1.783 3896	1.840 9491	1.900 2927
27	1.706 8865	1.764 2734	1.823 5159	1.884 6716	1.947 8000
28	1.741 0242	1.801 7642	1.864 5450	1.929 4326	1.996 4950
29	1.775 8447	1.840 0517	1.906 4972	1.975 2566	2.046 4074
30	1.811 3616	1.879 1528	1.949 3934	2.022 1690	2.097 5676
31	1.847 5888	1.919 0848	1.993 2548	2.070 1955	2.150 0068
32	1.884 5406	1.959 8653	2.038 1030	2.119 3626	2.203 7569
33	1.922 2314	2.001 5124	2.083 9603	2.169 6975	2.258 8509
34	1.960 6760	2.044 0446	2.130 8494	2.221 2278	2.315 3221
35	1.999 8896	2.087 4805	2.178 7936	2.273 9820	2.373 2052
36	2.039 8873	2.131 8395	2.227 8164	2.327 9890	2.432 5353
37	2.080 6851	2.177 1411	2.277 9423	2.383 2788	2.493 3487
38	2.122 2988	2.223 4053	2.329 1960	2.439 8816	2.555 6824
39	2.164 7448	2.270 6527	2.381 6029	2.497 8288	2.619 5745
40	2.208 0397	2.318 9041	2.435 1890	2.557 1523	2.685 0638
41	2.252 2005	2.368 1808	2.489 9807	2.617 8846	2.752 1904
42	2.297 2445	2.418 5046	2.546 0053	2.680 0594	2.820 9952
43	2.343 1894	2.469 8978	2.603 2904	2.743 7108	2.891 5201
44	2.390 0531	2.522 3832	2.661 8644	2.808 8740	2.963 8081
45	2.437 8542	2.575 9838	2.721 7564	2.875 5847	3.037 9033
46	2.486 6113	2.630 7235	2.782 9959	2.943 8798	3.113 8509
47	2.536 3435	2.686 6263	2.845 6133	3.013 7970	3.191 6971
48	2.587 0704	2.743 7172	2.909 6396	3.085 3747	3.271 4896
49	2.638 8118	2.802 0211	2.975 1065	3.158 6523	3.353 2768
50	2.691 5880	2.861 5641	3.042 0464	3.233 6703	3.437 1087
60	3.281 0308	3.531 2151	3.800 1348	4.089 1674	4.399 7898
70	3.999 5582	4.357 5750	4.747 1414	5.170 9940	5.632 1029
80	4.875 4392	5.377 3161	5.930 1453	6.539 0278	7.209 5678
90	5.943 1331	6.635 6926	7.407 9578	8.268 9874	9.228 8563
100	7.244 6461	8.188 5490	9.254 0463	10.456 6236	11.813 7164

Compound Amount Tables—(Continued)

FIG. 13c. AMOUNT OF 1. $s = (1 + i)^n$

n	3%	3½%	4%	4¼%	4½%
1	1.030 0000	1.035 0000	1.040 0000	1.042 5000	1.045 0000
2	1.060 9000	1.071 2250	1.081 6000	1.086 8062	1.092 0250
3	1.092 7270	1.108 7179	1.124 8640	1.132 9955	1.141 1661
4	1.125 5088	1.147 5230	1.169 8586	1.181 1478	1.192 5186
5	1.159 2741	1.187 6863	1.216 6529	1.231 3466	1.246 1819
6	1.194 0523	1.229 2553	1.265 3190	1.283 6788	1.302 2601
7	1.229 8739	1.272 2793	1.315 9318	1.338 2352	1.360 8618
8	1.266 7701	1.316 8090	1.368 5690	1.395 1102	1.422 1006
9	1.304 7732	1.361 8974	1.423 3118	1.454 4024	1.486 0951
10	1.343 9164	1.410 5988	1.480 2443	1.516 2145	1.552 9694
11	1.384 2339	1.459 9697	1.539 4541	1.580 6536	1.622 8530
12	1.425 7609	1.511 0687	1.601 0322	1.647 8314	1.695 8814
13	1.468 5337	1.563 9561	1.665 0735	1.717 8642	1.772 1961
14	1.512 5897	1.618 6945	1.731 6764	1.790 8734	1.851 9449
15	1.557 9674	1.675 3488	1.800 9435	1.866 9855	1.935 2824
16	1.604 7064	1.733 9860	1.872 9812	1.946 3324	2.022 3702
17	1.652 8476	1.794 6756	1.947 9005	2.029 0516	2.113 3768
18	1.702 4331	1.857 4892	2.025 8165	2.115 2862	2.208 4788
19	1.753 5060	1.922 5013	2.106 8492	2.205 1859	2.307 8603
20	1.806 1112	1.989 7889	2.191 1231	2.298 9063	2.411 7140
21	1.860 2946	2.059 4315	2.278 7681	2.396 6098	2.520 2412
22	1.916 1034	2.131 5116	2.369 9188	2.498 4658	2.633 6520
23	1.973 5865	2.206 1145	2.464 7155	2.604 6505	2.752 1664
24	2.032 7941	2.283 3285	2.563 3042	2.715 3482	2.876 0138
25	2.093 7779	2.363 2450	2.665 8363	2.830 7505	3.005 4345
26	2.156 5913	2.445 9586	2.772 4698	2.951 0574	3.140 6790
27	2.221 2890	2.531 5671	2.883 3686	3.076 4773	3.282 0096
28	2.287 9277	2.620 1720	2.998 7033	3.207 2276	3.429 7000
29	2.356 5655	2.711 8780	3.118 6514	3.343 5348	3.584 0365
30	2.427 2625	2.806 7937	3.243 3975	3.485 6350	3.745 3181
31	2.500 0804	2.905 0315	3.373 1334	3.633 7745	3.913 8574
32	2.575 0828	3.006 7076	3.508 0588	3.788 2099	4.089 9810
33	2.652 3352	3.111 9424	3.648 3811	3.949 2088	4.274 0302
34	2.731 9053	3.220 8603	3.794 3163	4.117 0502	4.466 3615
35	2.813 8624	3.333 5904	3.946 0890	4.292 0248	4.667 3478
36	2.898 2783	3.450 2661	4.103 9326	4.474 4359	4.877 3785
37	2.985 2267	3.571 0254	4.268 0899	4.664 5994	5.096 8605
38	3.074 7835	3.696 0113	4.438 8134	4.862 8449	5.326 2192
39	3.167 0270	3.825 3717	4.616 3660	5.069 5158	5.565 8991
40	3.262 0378	3.959 2597	4.801 0206	5.284 9702	5.816 3645
41	3.359 8989	4.097 8338	4.993 0614	5.509 5815	6.078 1009
42	3.460 6959	4.241 2580	5.192 7839	5.743 7387	6.351 6155
43	3.564 5168	4.389 7020	5.400 4953	5.987 8476	6.637 4382
44	3.671 4523	4.543 3416	5.616 5151	6.242 3311	6.936 1229
45	3.781 5958	4.702 3586	5.841 1757	6.507 6302	7.248 2484
46	3.895 0437	4.866 9411	6.074 8227	6.784 2044	7.574 4196
47	4.011 8950	5.037 2840	6.317 8156	7.072 5331	7.915 2685
48	4.132 2519	5.213 5890	6.570 5282	7.373 1158	8.271 4556
49	4.256 2194	5.396 0646	6.833 3494	7.686 4732	8.643 6711
50	4.383 9060	5.584 9269	7.106 6834	8.013 1483	9.032 6363
60	5.891 6031	7.878 0909	10.519 6274	12.149 6514	14.027 4079
70	7.917 8219	11.112 8253	15.571 6184	18.421 4773	21.784 1356
80	10.640 8906	15.675 7375	23.049 7991	27.930 9104	33.830 0964
90	14.300 4671	22.112 1760	34.119 3333	42.349 2505	52.537 1053
100	19.218 6320	31.191 4080	50.504 9482	64.210 5462	81.588 5180

Compound Amount Tables—(Continued)

FIG. 13d. AMOUNT OF 1. $s = (1 + i)^n$

n	4¾%	5%	6%	7%	8%
1	1.047 5000	1.050 0000	1.060 0000	1.070 0000	1.080 0000
2	1.097 2562	1.102 5000	1.123 6000	1.144 9000	1.166 4000
3	1.149 3759	1.157 6250	1.191 0160	1.225 0430	1.259 7120
4	1.203 9713	1.215 5062	1.262 4770	1.310 7960	1.360 4890
5	1.261 1599	1.276 2816	1.338 2256	1.402 5517	1.469 3281
6	1.321 0650	1.340 0956	1.418 5191	1.500 7304	1.586 8743
7	1.383 8156	1.407 1004	1.503 6303	1.605 7815	1.713 8243
8	1.449 5468	1.477 4554	1.593 8481	1.718 1862	1.850 9302
9	1.518 4003	1.551 3282	1.689 4790	1.838 4592	1.999 0046
10	1.590 5243	1.628 8946	1.790 8477	1.967 1514	2.158 9250
11	1.666 0742	1.710 3394	1.898 2986	2.104 8520	2.331 6390
12	1.745 2128	1.795 8563	2.012 1965	2.252 1916	2.518 1701
13	1.828 1104	1.885 6491	2.132 9283	2.409 8450	2.719 6237
14	1.914 9456	1.979 9316	2.260 9040	2.578 5342	2.937 1936
15	2.005 9055	2.078 9282	2.396 5582	2.759 0315	3.172 1691
16	2.101 1860	2.182 8746	2.540 3517	2.952 1638	3.425 9426
17	2.200 9924	2.292 0183	2.692 7728	3.158 8152	3.700 0180
18	2.305 5395	2.406 6192	2.854 3392	3.379 9323	3.996 0195
19	2.415 0526	2.526 9502	3.025 5995	3.616 5275	4.315 7011
20	2.529 7676	2.653 2977	3.207 1355	3.869 6845	4.660 9571
21	2.649 9316	2.785 9626	3.399 5636	4.140 5624	5.033 8337
22	2.775 8034	2.925 2607	3.603 5374	4.430 4017	5.436 5404
23	2.907 6540	3.071 5238	3.819 7497	4.740 5299	5.871 4636
24	3.045 7676	3.225 0999	4.048 9346	5.072 3670	6.341 1807
25	3.190 4415	3.386 3549	4.291 8707	5.427 4326	6.848 4752
26	3.341 9875	3.555 6727	4.549 3830	5.807 3529	7.396 3532
27	3.500 7319	3.733 4563	4.822 3459	6.213 8676	7.988 0615
28	3.667 0167	3.920 1291	5.111 6867	6.648 8384	8.627 1064
29	3.841 2000	4.116 1356	5.418 3879	7.114 2570	9.317 2749
30	4.023 6570	4.321 9424	5.743 4912	7.612 2550	10.062 6569
31	4.214 7807	4.538 0395	6.088 1006	8.145 1129	10.867 6694
32	4.414 9828	4.764 9415	6.453 3867	8.715 2708	11.737 0830
33	4.624 6944	5.003 1885	6.840 5899	9.325 3398	12.676 0496
34	4.844 3674	5.253 3480	7.251 0253	9.978 1135	13.690 1336
35	5.074 4749	5.516 0154	7.686 0868	10.676 5815	14.785 3443
36	5.315 5124	5.791 8161	8.147 2520	11.423 9422	15.968 1718
37	5.567 9993	6.081 4069	8.636 0871	12.223 6181	17.245 6256
38	5.832 4792	6.385 4773	9.154 2524	13.079 2714	18.625 2756
39	6.109 5220	6.704 7512	9.703 5075	13.994 8204	20.115 2977
40	6.399 7243	7.039 9887	10.285 7179	14.974 4578	21.724 5215
41	6.703 7112	7.391 9882	10.902 8610	16.022 6699	23.462 4832
42	7.022 1375	7.761 5876	11.557 0327	17.144 2568	25.339 4819
43	7.355 6890	8.149 6669	12.250 4546	18.344 3548	27.366 6404
44	7.705 0843	8.557 1503	12.985 4819	19.628 4596	29.555 9717
45	8.071 0758	8.985 0078	13.764 6108	21.002 4518	31.920 4494
46	8.454 4519	9.434 2582	14.590 4875	22.472 6234	34.474 0853
47	8.856 0383	9.905 9711	15.465 9167	24.045 7070	37.232 0122
48	9.276 7001	10.401 2696	16.393 8717	25.728 9065	40.210 5731
49	9.717 3434	10.921 3331	17.377 5040	27.529 9300	43.427 4190
50	10.178 9172	11.467 3998	18.420 1543	29.457 0251	46.901 6125
60	16.189 8154	18.679 1859	32.987 6908	57.946 4268	101.257 0637
70	25.750 2954	30.426 4205	59.075 9302	113.989 3922	218.606 4059
80	40.956 4712	49.561 4411	105.795 9935	224.234 3876	471.954 8343
90	65.142 2639	80.730 3650	189.464 5112	441.102 9799	1018.915 0893
100	103.610 3555	131.501 2578	339.302 0835	867.716 3256	2199.761 2563

Locate the 3½% column in Fig. 13; run down the column to the twelfth line. The figure on that line represents the compound amount of $1 for 12 years at 3½%, in short, 1.035^{12}. Hence,

$$A = \$2{,}634.56 \times 1.5110687$$
$$= \$3{,}981$$

Value of $(1 + i)^n$ by Logarithms.—There are many occasions when prepared tables cannot be used. This condition occurs when the time for which the compound amount is to be found is beyond the table limits, in this case, 50 interest periods. Again the given interest rate may be one not found in the tables. In both cases, the best solution is through the use of logarithms.

Example. Find the compound amount of $4,950 for 5 years at 6%, converted monthly.

This is equivalent to compounding at ½% for 60 interest periods. Hence,

$$A = 4{,}950 \times (1.005)^{60}$$
$$\log A = \log 4950 + 60 \log 1.005.$$

This may be solved through the use of any standard logarithm table. The following solution is based on Lang and Schlauch (Selected Tables for Mathematics of Business and Finance).

$$\log 4950 = 3.694605$$
$$\log 1.005 = .00216606$$
$$\times \quad 60$$
$$.129964$$
$$\log A = 3.824569$$
$$3.824516 \ldots 6676$$
$$\frac{53}{65} = .8$$
$$A = \$6{,}676.80$$

(For an explanation of logarithms, see the latter part of this Section.)

DEFINITION OF PRESENT VALUE.—The general formula $A = P(1 + i)^n$ may be used to find any of the variables contained in it. The most common converse case is finding the present value (P). This is the value at the present moment of money due at a future time. It is the reciprocal of the compound amount, and may also be defined as that sum of money, which, when placed at compound interest for the full number of periods involved, will amount to the given sum.

Example. $1,500 at compound interest for 6 periods at 3% per period will amount to $1,791.08. Hence the present worth of $1,791.08 due 6 periods hence at 3% per period compounded is $1,500.

The formula for the present value of $1 is:

$$v^n = \frac{1}{(1 + i)^n}, \text{ in which}$$

v^n = Present value of $1
i = Interest rate
n = Number of periods

The formula for the present value of any number of dollars is:

$$P = A \times \frac{1}{(1 + i)^n}, \text{ i.e., } Av^n$$

This formula is used whenever prepared present value tables are available. When, because of table limitations, logarithms must be used, the formula is better stated as

$$P = \frac{A}{(1+i)^n}$$

In these formulas

A = Given sum; i.e., the compound amount
P = Present value

FINDING PRESENT VALUE FROM TABLES.—Figs. 14a to 14d show the present value of $1 for a number of interest rates for every period from 1 to 50 and at greater intervals thereafter. The use of the table is illustrated below.

Example. Find the present value of $6,975 for 6 years at 2%.

Fig. 14b shows the present value of $1 for 6 periods ($v^6$) at 2% is $.8879714.

$$P = A \times v^6 \text{ at } 2\%$$
$$P = 6{,}975 \times .8879714 = \underline{\underline{\$6{,}193.60}}$$

The difference between the present value and the given compound amount is called the **compound discount.** In the above illustration, the compound discount is

$$\$6{,}975 - \$6{,}193.60 = \underline{\underline{\$781.40}}$$

The compound discount represents the amount of interest that $6,913.60 would earn in 6 years at 2%.

FINDING PRESENT VALUES BY LOGS.—Where the number of periods or the interest rate is not given by the table, logarithms may be used to find the present value, as in the example below.

Example. Find the present value of $7,418 at ¼% quarterly for 10 years. Ten years are equivalent to 40 interest periods.

$$P = \frac{7418}{(1.0025)^{40}}$$

$$\log P = \log 7418 - 40 \log 1.0025$$

$$\log 7418 = 3.870287$$

$$\log 1.0025 = .00108438$$

$$\times \quad 40$$

$$\log P = \underline{\underline{3.826912}}$$

$$3.826852 \ldots 6712$$

$$\frac{60}{65} = .9$$

$$P = \underline{\underline{\$6{,}712.90}}$$

(For an explanation of logarithms, see latter part of this Section.)

OTHER CONVERSE CASES.—Occasionally it becomes necessary to find how long it will take for a given sum to amount to another sum at some future time; or what interest rate is being realized on a given principal. In short, the problem is to find n or i in the general formula. These may be found either by interpolation in a table or by logarithms.

Present Value Tables

FIG. 14a. PRESENT VALUE OF 1. $v^n = \frac{1}{(1+i)^n}$

n	½%	1%	1¼%	1½%	1¾%
1	.995 0249	.990 0990	.987 6543	.985 2217	.982 8010
2	.990 0745	.980 2960	.975 4611	.970 6618	.965 8978
3	.985 1488	.970 5902	.963 4183	.956 3170	.949 2853
4	.980 2475	.960 9803	.951 5243	.942 1642	.932 9585
5	.975 3707	.951 4657	.939 7771	.928 2603	.916 9125
6	.970 5181	.942 0452	.928 1749	.914 5422	.901 1425
7	.965 6896	.932 7180	.916 7159	.901 0268	.885 6438
8	.960 8852	.923 4832	.905 3984	.887 7111	.870 4116
9	.956 1047	.914 3398	.894 2207	.874 5922	.855 4414
10	.951 3479	.905 2870	.883 1809	.861 6672	.840 7286
11	.946 6149	.896 3237	.872 2775	.848 9332	.826 2689
12	.941 9053	.887 4492	.861 5086	.836 3874	.812 0579
13	.937 2192	.878 6626	.850 8727	.824 0270	.798 0913
14	.932 5565	.869 9630	.840 3681	.811 8493	.784 3649
15	.927 9169	.861 3495	.829 9932	.799 8515	.770 8746
16	.923 3004	.852 8213	.819 7464	.788 0310	.757 6163
17	.918 7068	.844 3775	.809 6260	.776 3853	.744 5860
18	.914 1362	.836 0173	.799 6306	.764 9116	.731 7799
19	.909 5882	.827 7399	.789 7587	.753 6075	.719 1940
20	.905 0629	.819 5445	.780 0086	.742 4704	.706 8246
21	.900 5601	.811 4302	.770 3788	.731 4980	.694 6679
22	.896 0797	.803 3962	.760 8680	.720 6876	.682 7203
23	.891 6216	.795 4418	.751 4745	.710 0371	.670 9782
24	.887 1857	.787 5661	.742 1971	.699 5439	.659 4380
25	.882 7718	.779 7684	.733 0341	.689 2058	.648 0963
26	.878 3799	.772 0480	.723 9843	.679 0205	.636 9497
27	.874 0099	.764 4039	.715 0463	.668 9857	.625 9948
28	.869 6616	.756 8356	.706 2185	.659 0992	.615 2283
29	.865 3349	.749 3422	.697 4998	.649 3589	.604 6470
30	.861 0297	.741 9229	.688 8887	.639 7624	.594 2476
31	.856 7460	.734 5772	.680 3839	.630 3078	.584 0272
32	.852 4836	.727 3041	.671 9841	.620 9929	.573 9825
33	.848 2424	.720 1031	.663 6880	.611 8157	.564 1105
34	.844 0223	.712 9733	.655 4943	.602 7741	.554 4084
35	.839 8231	.705 9142	.647 4018	.593 8661	.544 8731
36	.835 6449	.698 9250	.639 4092	.585 0897	.535 5018
37	.831 4875	.692 0049	.631 5152	.576 4431	.526 2917
38	.827 3507	.685 1534	.623 7187	.567 9242	.517 2400
39	.823 2346	.678 3697	.616 0185	.559 5313	.508 3440
40	.819 1389	.671 6531	.608 4133	.551 2623	.499 6010
41	.815 0635	.665 0031	.600 9021	.543 1156	.491 0083
42	.811 0085	.658 4189	.593 4835	.535 0892	.482 5635
43	.806 9736	.651 8999	.586 1566	.527 1815	.474 2639
44	.802 9588	.645 4455	.578 9201	.519 3907	.466 1070
45	.798 9640	.639 0549	.571 7729	.511 7149	.458 0904
46	.794 9891	.632 7276	.564 7140	.504 1526	.450 2117
47	.791 0339	.626 4630	.557 7422	.496 7021	.442 4685
48	.787 0984	.620 2604	.550 8565	.489 3617	.434 8585
49	.783 1825	.614 1192	.544 0558	.482 1298	.427 3793
50	.779 2861	.608 0388	.537 3390	.475 0047	.420 0288
60	.741 3722	.550 4496	.474 5676	.409 2960	.353 1302
70	.705 3029	.498 3149	.419 1290	.352 6769	.296 8867
80	.670 9885	.451 1179	.370 1668	.303 8902	.249 6011
90	.638 3435	.408 3912	.326 9242	.261 8522	.209 8468
100	.607 2868	.369 7112	.288 7333	.225 6294	.176 4242

Present Value Tables—(Continued)

FIG. 14b. PRESENT VALUE OF 1. $v^n = \frac{1}{(1+i)^n}$

n	2%	2⅛%	2¼%	2⅜%	2½%
1	.980 3922	.979 1922	.977 9951	.976 8010	.975 6098
2	.961 1688	.958 8173	.956 4744	.954 1402	.951 8144
3	.942 3223	.938 8664	.935 4273	.932 0050	.928 5994
4	.923 8454	.919 3306	.914 8434	.910 3834	.905 9506
5	.905 7308	.900 2013	.894 7123	.889 2634	.883 8543
6	.887 9714	.881 4701	.875 0243	.868 6334	.862 2969
7	.870 5602	.863 1286	.855 7695	.848 4819	.841 2652
8	.853 4904	.845 1688	.836 9384	.828 7980	.820 7466
9	.836 7553	.827 5826	.818 5216	.809 5707	.800 7284
10	.820 3483	.810 3624	.800 5101	.790 7894	.781 1984
11	.804 2630	.793 5006	.782 8950	.772 4439	.762 1448
12	.788 4932	.776 9895	.765 6675	.754 5239	.743 5559
13	.773 0325	.760 8221	.748 8190	.737 0197	.725 4204
14	.757 8750	.744 9910	.732 3414	.719 9216	.707 7272
15	.743 0147	.729 4894	.716 2263	.703 2201	.690 4656
16	.728 4458	.714 3103	.700 4658	.686 9061	.673 6249
17	.714 1626	.699 4470	.685 0521	.670 9705	.657 1951
18	.700 1594	.684 8930	.669 9776	.655 4047	.641 1659
19	.686 4308	.670 6419	.655 2348	.640 1999	.625 5277
20	.672 9713	.656 6873	.640 8165	.625 3479	.610 2709
21	.659 7758	.643 0230	.626 7154	.610 8404	.595 3863
22	.646 8390	.629 6431	.612 9246	.596 6696	.580 8647
23	.634 1559	.616 5416	.599 4372	.582 8274	.566 6972
24	.621 7215	.603 7127	.586 2467	.569 3064	.552 8754
25	.609 5309	.591 1508	.573 3464	.556 0990	.539 3906
26	.597 5793	.578 8502	.560 7300	.543 1981	.526 2347
27	.585 8620	.566 8056	.548 3912	.530 5964	.513 3997
28	.574 3746	.555 0116	.536 3239	.518 2871	.500 8778
29	.563 1123	.543 4630	.524 5221	.506 2633	.488 6612
30	.552 0709	.532 1547	.512 9801	.494 5185	.476 7427
31	.541 2460	.521 0817	.501 6920	.483 0462	.465 1148
32	.530 6333	.510 2392	.490 6523	.471 8400	.453 7706
33	.520 2287	.499 6222	.479 8556	.460 8937	.442 7030
34	.510 0282	.489 2261	.469 2964	.450 2015	.431 9053
35	.500 0276	.479 0464	.458 9696	.439 7572	.421 3711
36	.490 2232	.469 0785	.448 8700	.429 5553	.411 0937
37	.480 6109	.459 3180	.438 9927	.419 5900	.401 0670
38	.471 1872	.449 7606	.429 3327	.409 8559	.391 2849
39	.461 9482	.440 4020	.419 8853	.400 3477	.381 7414
40	.452 8904	.431 2382	.410 6458	.391 0600	.372 4306
41	.444 0102	.422 2651	.401 6095	.381 9878	.363 3470
42	.435 3041	.413 4786	.392 7722	.373 1261	.354 4848
43	.426 7688	.404 8750	.384 1292	.364 4699	.345 8389
44	.418 4007	.396 4505	.375 6765	.356 0146	.337 4038
45	.410 1968	.388 2012	.367 4098	.347 7554	.329 1744
46	.402 1537	.380 1236	.359 3250	.339 6878	.321 1458
47	.394 2684	.372 2140	.351 4181	.331 8074	.313 3129
48	.386 5376	.364 4691	.343 6852	.324 1098	.305 6712
49	.378 9584	.356 8852	.336 1224	.316 5907	.298 2158
50	.371 5279	.349 4592	.328 7261	.309 2461	.290 9422
60	.304 7823	.283 1886	.263 1486	.244 5486	.227 2836
70	.250 0276	.229 4854	.210 6531	.193 3864	.177 5536
80	.205 1097	.185 9664	.168 6299	.152 9279	.138 7046
90	.168 2614	.150 7002	.134 9900	.120 9338	.108 3558
100	.138 0330	.122 1218	.108 0608	.095 6332	.084 6474

Present Value Tables—(Continued)

FIG. 14c. PRESENT VALUE OF 1. $v^n = \frac{1}{(1+i)^n}$

n	3%	3½%	4%	4¼%	4½%
1	.970 8738	.966 1836	.961 5385	.959 2326	.956 9378
2	.942 5959	.933 5107	.924 5562	.920 1272	.915 7300
3	.915 1417	.901 9427	.888 9964	.882 6160	.876 2966
4	.888 4870	.871 4422	.854 8042	.846 6341	.838 5613
5	.862 6088	.841 9732	.821 9271	.812 1190	.802 4510
6	.837 4843	.813 5006	.790 3145	.779 0110	.767 8957
7	.813 0915	.785 9910	.759 9178	.747 2528	.734 8285
8	.789 4092	.759 4116	.730 6902	.716 7893	.703 1851
9	.766 4167	.733 7310	.702 5867	.687 5676	.672 9044
10	.744 0939	.708 9188	.675 5642	.659 5373	.643 9277
11	.722 4213	.684 9457	.649 5809	.632 6497	.616 1987
12	.701 3799	.661 7833	.624 5970	.606 8582	.589 6639
13	.680 9513	.639 4042	.600 5741	.582 1182	.564 2716
14	.661 1178	.617 7818	.577 4751	.558 3868	.539 9729
15	.641 8620	.596 8906	.555 2645	.535 6228	.516 7204
16	.623 1669	.576 7059	.533 9082	.513 7868	.494 4693
17	.605 0164	.557 2038	.513 3732	.492 8411	.473 1764
18	.587 3946	.538 3611	.493 6281	.472 7493	.452 8004
19	.570 2860	.520 1557	.474 6424	.453 4765	.433 3018
20	.553 6758	.502 5659	.456 3870	.434 9894	.414 6429
21	.537 5493	.485 5709	.438 8336	.417 2561	.396 7874
22	.521 8925	.469 1506	.421 9554	.400 2456	.379 7009
23	.506 6918	.453 2856	.405 7263	.383 9287	.363 3501
24	.491 9337	.437 9571	.390 1215	.368 2769	.347 7035
25	.477 6056	.423 1470	.375 1168	.353 2632	.332 7306
26	.463 6947	.408 8377	.360 6892	.338 8616	.318 4025
27	.450 1891	.395 0122	.346 8166	.325 0471	.304 6914
28	.437 0768	.381 6543	.333 4775	.311 7958	.291 5707
29	.424 3464	.368 7482	.320 6514	.299 0847	.279 0150
30	.411 9868	.356 2784	.308 3187	.286 8918	.267 0000
31	.399 9872	.344 2304	.296 4603	.275 1959	.255 5024
32	.388 3370	.332 5897	.285 0579	.263 9769	.244 4999
33	.377 0262	.321 3427	.274 0942	.253 2153	.233 9712
34	.366 0449	.310 4760	.263 5521	.242 8924	.223 8959
35	.355 3834	.299 9769	.253 4155	.232 9903	.214 2544
36	.345 0324	.289 8327	.243 6687	.223 4919	.205 0282
37	.334 9829	.280 0316	.234 2968	.214 3807	.196 1992
38	.325 2262	.270 5619	.225 2854	.205 6409	.187 7504
39	.315 7536	.261 4125	.216 6206	.197 2575	.179 6655
40	.306 5568	.252 5725	.208 2890	.189 2158	.171 9287
41	.297 6280	.244 0314	.200 2779	.181 5020	.164 5251
42	.288 9592	.235 7791	.192 5749	.174 1026	.157 4403
43	.280 5429	.227 8059	.185 1682	.167 0049	.150 6605
44	.272 3718	.220 1023	.178 0464	.160 1966	.144 1728
45	.264 4386	.212 6592	.171 1984	.153 6658	.137 9644
46	.256 7365	.205 4679	.164 6139	.147 4012	.132 0233
47	.249 2588	.198 5197	.158 2826	.141 3921	.126 3381
48	.241 9988	.191 8064	.152 1948	.135 6279	.120 8977
49	.234 9503	.185 3202	.146 3411	.130 0987	.115 6916
50	.228 1071	.179 0534	.140 7126	.124 7949	.110 7096
60	.169 7331	.126 9343	.095 0604	.082 3069	.071 2890
70	.126 2974	.089 9861	.064 2194	.054 2845	.045 9050
80	.093 9771	.063 7928	.043 3843	.035 8026	.029 5595
90	.069 9278	.045 2240	.029 3089	.023 6132	.019 0342
100	.052 0328	.032 0601	.019 8000	.015 5738	.012 2566

Present Value Tables—(Continued)

FIG. 14d. PRESENT VALUE OF 1. $v^n = \frac{1}{(1+i)^n}$

n	4¾%	5%	6%	7%	8%
1	.954 6539	.952 3810	.943 3962	.934 5794	.925 9259
2	.911 3641	.907 0295	.889 9964	.873 4387	.857 3388
3	.870 0374	.863 8376	.839 6193	.816 2979	.793 8322
4	.830 5846	.822 7025	.792 0937	.762 8952	.735 0298
5	.792 9209	.783 5262	.747 2582	.712 9862	.680 5832
6	.756 9650	.746 2154	.704 9605	.666 3422	.630 1696
7	.722 6396	.710 6813	.665 0571	.622 7497	.583 4904
8	.689 8708	.676 8394	.627 4124	.582 0091	.540 2689
9	.658 5878	.644 6089	.591 8985	.543 9337	.500 2490
10	.628 7235	.613 9132	.558 3948	.508 3493	.463 1935
11	.600 2134	.584 6793	.526 7875	.475 0928	.428 8829
12	.572 9960	.556 8374	.496 9694	.444 0120	.397 1138
13	.547 0129	.530 3214	.468 8390	.414 9644	.367 6979
14	.522 2080	.505 0680	.442 3010	.387 8172	.340 4610
15	.498 5280	.481 0171	.417 2651	.362 4460	.315 2417
16	.475 9217	.458 1115	.393 6463	.338 7346	.291 8905
17	.454 3405	.436 2967	.371 3644	.316 5744	.270 2690
18	.433 7380	.415 5206	.350 3438	.295 8639	.250 2490
19	.414 0696	.395 7340	.330 5130	.276 5083	.231 7121
20	.395 2932	.376 8895	.311 8047	.258 4190	.214 5482
21	.377 3682	.358 9424	.294 1554	.241 5131	.198 6558
22	.360 2561	.341 8499	.277 5051	.225 7132	.183 9405
23	.343 9199	.325 5713	.261 7973	.210 9469	.170 3153
24	.328 3245	.310 0679	.246 9786	.197 1466	.157 6993
25	.313 4362	.295 3028	.232 9986	.184 2492	.146 0179
26	.299 2231	.281 2407	.219 8100	.172 1955	.135 2018
27	.285 6546	.267 8483	.207 3680	.160 9304	.125 1868
28	.272 7012	.255 0936	.195 6301	.150 4022	.115 9137
29	.260 3353	.242 9463	.184 5567	.140 5628	.107 3275
30	.248 5301	.231 3774	.174 1101	.131 3671	.099 3773
31	.237 2603	.220 3595	.164 2548	.122 7730	.092 0160
32	.226 5014	.209 8662	.154 9574	.114 7411	.085 2000
33	.216 2305	.199 8725	.146 1862	.107 2347	.078 8889
34	.206 4253	.190 3548	.137 9115	.100 2193	.073 0453
35	.197 0647	.181 2903	.130 1052	.093 6629	.067 6345
36	.188 1286	.172 6574	.122 7408	.087 5355	.062 6246
37	.179 5977	.164 4356	.115 7932	.081 8088	.057 9857
38	.171 4537	.156 6054	.109 2388	.076 4569	.053 6905
39	.163 6789	.149 1480	.103 0555	.071 4550	.049 7134
40	.156 2567	.142 0457	.097 2222	.066 7804	.046 0309
41	.149 1711	.135 2816	.091 7190	.062 4116	.042 6212
42	.142 4068	.128 8396	.086 5274	.058 3286	.039 4641
43	.135 9492	.122 7044	.081 6296	.054 5127	.036 5408
44	.129 7844	.116 8613	.077 0091	.050 9464	.033 8341
45	.123 8992	.111 2965	.072 6501	.047 6135	.031 3279
46	.118 2809	.105 9967	.068 5378	.044 4986	.029 0073
47	.112 9173	.100 9492	.064 6583	.041 5875	.026 8586
48	.107 7970	.096 1421	.060 9984	.038 8668	.024 8691
49	.102 9088	.091 5639	.057 5457	.036 3241	.023 0269
50	.098 2423	.087 2037	.054 2884	.033 9478	.021 3212
60	.061 7672	.053 5355	.030 3143	.017 2573	.009 8758
70	.038 8345	.032 8662	.016 9274	.008 7728	.004 5744
80	.024 4162	.020 1770	.009 4522	.004 4596	.002 1188
90	.015 3510	.012 3869	.005 2780	.002 2670	.000 9814
100	.009 6515	.007 6045	.002 9472	.001 1524	.000 4546

Finding Value of n.—The example below illustrates two methods for finding n.

Example. How long will it take for \$765 to amount to \$1,350 if money is worth 3½%.

By logarithms:

$$\begin{aligned} A &= P \times (1+i)^n \\ 1350 &= 765 \times 1.035^n \\ \log 1350 &= \log 765 + n \log 1.035 \\ n \log 1.035 &= \log 1350 - \log 765 \\ n &= \frac{\log 1350 - \log 765}{\log 1.035} \\ n &= \frac{3.130334 - 2.883661}{.014940} \\ n &= \frac{.246673}{.014940} = \underline{\underline{16.5 \text{ years}}} \end{aligned}$$

A general formula based on the above demonstration can be worked out as follows:

$$n = \frac{\log A - \log P}{\log (1+i)}$$

By interpolation:

$$\begin{aligned} A &= P \times (1+i)^n \\ 1350 &= 765 \times 1.035^n \\ 1.035^n &= \frac{1350}{765} = 1.7647 \end{aligned}$$

Now consult Fig. 13c, and locate in the 3½% column a value just above and one just below the value given above. The procedure is as follows:

(1) Years	(2) Tabular Difference	(3) Given Difference
16	1.7340	1.7340
?		1.7647
17	1.7947	
	.0607	.0307

$$\frac{307}{607} = .5$$

Hence $n = 16 + .5 = \underline{\underline{16.5 \text{ years}}}$

Finding Value of i.—The logarithmic method and also the solution by interpolation are illustrated below.

Example. Find the yield on U. S. government bonds sold at \$18.75 redeemable in 10 years for \$25.

By logarithms: These are not coupon bonds, but bonds sold on a discount basis.

$$\begin{aligned} A &= P(1+i)^n \\ 25 &= 18.75\,(1+i)^{10} \\ (1+i)^{10} &= \frac{25}{18.75} = \frac{4}{3} \\ 10 \log (1+i) &= \log 4 - \log 3 \\ \log (1+i) &= \frac{\log 4 - \log 3}{10} \\ &= \frac{.602060 - .477121}{10} \end{aligned}$$

$$= \frac{.124939}{10} = .012494$$

$$.012415 \ldots 1029$$
$$\frac{79}{422} = .2$$

$$1 + i = 1.0292$$
$$i = .0292 = \underline{\underline{2.92\%}}$$

By interpolation: Proceed as in the previous solution.

$$(1 + i)^{10} = 4/3 = 1.3333$$

Now look in Figs. 13b and 13c on the tenth line and find values on that line just above and below 1.3333. The value is evidently between 2½% and 3%. The computation is as follows:

Rate	Tabular Difference	Given Difference
2.5%	1.2801	1.2801
?		1.3333
3%	1.3439	
.5%	.0638	.0532

A jump in the table of ½% increases the compound amount by roughly $.06. Hence the change in rate for the difference in column (3) is:

$$\frac{.0532}{.0638} \times .5\%$$

$$= \frac{532}{638} \times .005 = .0042 = .42\%$$

Hence $i = 2.5\% + .42\% = \underline{\underline{2.92\%}}$

Annuities

DEFINITIONS.—An annuity is the payment of a fixed sum of money at uniform intervals of time. An **example** of an annuity is rent on the use of property. Payments of annuities are commonly called **rents.**

Ordinary Annuity.—An ordinary annuity is a series of equal payments each of which is made at the end of a period of time.

Annuity Due.—An annuity due is one in which the payments are made or received at the beginning of a period.

A life insurance premium paid in advance is an example of an annuity due.

Deferred Annuity.—A deferred annuity is one in which payments are to be made or received after a number of periods have elapsed.

Amount or Final Value of Annuity.—The total of all annuity payments made, together with the interest earned by these payments, is the amount of an annuity. It is technically referred to as the **final value** of an annuity.

Perpetuity.—An annuity in which the payments continue indefinitely is a perpetuity. An example of this type is to be found in the payments made from endowment funds.

Life Annuity.—An annuity whose duration depends on the life expectancy of one or more persons is called a **contingent** or life annuity.

Annuity Certain.—This is an annuity that has a definite number of periods to run.

Example. A person now aged 16 is to receive the income from a trust fund at age 21, and annually thereafter until age 25. This is an ordinary annuity certain deferred 4 years; it is certain, because it runs for 5 years, once it becomes effective.

FINAL VALUE OF ORDINARY ANNUITY.—The total accumulation of an annuity may be found by two methods. In the first or arithmetical method, the interest is computed on the accumulations to date and added to the principal together with the new payment. The second method compounds each payment from the date of the payment to the end of the annuity series. The arithmetical method is illustrated below:

Example.

Payment end of first year	$ 200.00
Interest second year (4%)	8.00
Payment end of second year	200.00
Total end of second year	$ 408.00
Interest third year	16.32
Payment end of third year	200.00
Total end of third year	$ 624.32
Interest fourth year	24.97
Payment end of fourth year	200.00
Total end of fourth year	$ 849.29
Interest fifth year	33.97
Payment end of fifth year	200.00
Total accumulation (final value)	$1,083.26

In effect, the final value of an annuity is the sum of the compound amounts of the individual payments. Thus in the diagram below, the first payment made at the end of the first year bears interest for 4 years, the second for 3 years.

	1947		1948		1949		1950		1951		
Payments (end of each year)	$1		$1		$1		$1		$1		
Compound Amount (end of 1951)	1.04^4		1.04^3		1.04^2		1.04		1		
Total Value	1.16985856	+	1.124864	+	1.0816	+	1.04	+	1	=	$5.41632256

Assuming money is worth 4%, the compound amount of each $1 payment is shown underneath the payments in the diagram. When the values are totaled, it is found that an ordinary annuity of $1 per year annually for 5 years at 4% amounts to $5.41632256. For an annuity of $200 under these conditions, the final amount is

$$200 \times 5.41632256 = \$1,083.26.$$

Instead of laboriously calculating the compound amount of each payment, recourse may be had to prepared annuity tables, Figs. 15a to 15d. Thus in the illustration above, the answer may be found directly in the 4% column on line 5 in Fig. 15c.

Final Value of Annuity

FIG. 15a. AMOUNT OF 1 PER ANNUM. $s_{\overline{n}|i} = \dfrac{(1+i)^n - 1}{i}$

n	½%	1%	1¼%	1½%	1¾%
1	1.000 0000	1.000 0000	1.000 0000	1.000 0000	1.000 0000
2	2.005 0000	2.010 0000	2.012 5000	2.015 0000	2.017 5000
3	3.015 0250	3.030 1000	3.037 6562	3.045 2250	3.052 8062
4	4.030 1001	4.060 4010	4.075 6270	4.090 9034	4.106 2304
5	5.050 2506	5.101 0050	5.126 5723	5.152 2669	5.178 0894
6	6.075 5019	6.152 0151	6.190 6544	6.229 5509	6.268 7060
7	7.105 8794	7.213 5352	7.268 0376	7.322 9942	7.378 4083
8	8.141 4088	8.285 6706	8.358 8881	8.432 8391	8.507 5304
9	9.182 1158	9.368 5273	9.463 3742	9.559 3317	9.656 4122
10	10.228 0264	10.462 2125	10.581 6664	10.702 7217	10.825 3994
11	11.279 1665	11.566 8347	11.713 9372	11.863 2625	12.014 8439
12	12.335 5624	12.682 5030	12.860 3614	13.041 2114	13.225 1037
13	13.397 2402	13.809 3280	14.021 1159	14.236 8296	14.456 5430
14	14.464 2264	14.947 4213	15.196 3799	15.450 3820	15.709 5325
15	15.536 5475	16.096 8955	16.386 3346	16.682 1378	16.984 4494
16	16.614 2303	17.257 8645	17.591 1638	17.932 3698	18.281 6772
17	17.697 3014	18.430 4431	18.811 0534	19.201 3554	19.601 6066
18	18.785 7879	19.614 7476	20.046 1915	20.489 3757	20.944 6347
19	19.879 7168	20.810 8950	21.296 7689	21.796 7164	22.311 1658
20	20.979 1154	22.019 0040	22.562 9785	23.123 6671	23.701 6112
21	22.084 0110	23.239 1940	23.845 0158	24.470 5221	25.116 3894
22	23.194 4311	24.471 5860	25.143 0785	25.837 5799	26.555 9262
23	24.310 4032	25.716 3018	26.457 3670	27.225 1436	28.020 6549
24	25.431 9552	26.973 4648	27.788 0840	28.633 5208	29.511 0164
25	26.559 1150	28.243 1995	29.135 4351	30.063 0236	31.027 4592
26	27.691 9106	29.525 6315	30.499 6280	31.513 9690	32.570 4397
27	28.830 3702	30.820 8878	31.880 8734	32.986 6785	34.140 4224
28	29.974 5220	32.129 0967	33.279 3843	34.481 4787	35.737 8798
29	31.124 3946	33.450 3877	34.695 3766	35.998 7008	37.363 2927
30	32.280 0166	34.784 8915	36.129 0688	37.538 6814	39.017 1503
31	33.441 4167	36.132 7404	37.580 6822	39.101 7616	40.699 9504
32	34.608 6238	37.494 0678	39.050 4407	40.688 2880	42.412 1996
33	35.781 6669	38.869 0085	40.538 5712	42.298 6123	44.154 4130
34	36.960 5752	40.257 6986	42.045 3033	43.933 0915	45.927 1153
35	38.145 3781	41.660 2756	43.570 8696	45.592 0879	47.730 8398
36	39.336 1050	43.076 8784	45.115 5055	47.275 9692	49.566 1295
37	40.532 7855	44.507 6471	46.679 4493	48.985 1087	51.433 5368
38	41.735 4494	45.952 7236	48.262 9424	50.719 8854	53.333 6236
39	42.944 1267	47.412 2508	49.866 2292	52.480 6837	55.266 9621
40	44.158 8473	48.886 3734	51.489 5571	54.267 8939	57.234 1339
41	45.379 6415	50.375 2371	53.133 1765	56.081 9123	59.235 7312
42	46.606 5397	51.878 9895	54.797 3412	57.923 1410	61.272 3565
43	47.839 5724	53.397 7794	56.482 3080	59.791 9881	63.344 6228
44	49.078 7703	54.931 7572	58.188 3369	61.688 8679	65.453 1537
45	50.324 1642	56.481 0747	59.915 6911	63.614 2010	67.598 5839
46	51.575 7850	58.045 8855	61.664 6372	65.568 4140	69.781 5591
47	52.833 6639	59.626 3443	63.435 4452	67.551 9402	72.002 7364
48	54.097 8322	61.222 6078	65.228 3882	69.565 2193	74.262 7842
49	55.368 3214	62.834 8338	67.043 7431	71.608 6976	76.562 3830
50	56.645 1630	64.463 1822	68.881 7899	73.682 8280	78.902 2247
60	69.770 0305	81.669 6699	88.574 5078	96.214 6517	104.675 2159
70	83.566 1055	100.676 3368	110.871 9978	122.363 7530	135.330 7583
80	98.067 7136	121.671 5217	136.118 7953	152.710 8525	171.793 8242
90	113.310 9358	144.863 2675	164.705 0076	187.929 9004	215.164 6172
100	129.333 6984	170.481 3829	197.072 3420	228.803 0433	266.751 7679

Final Value of Annuity—(Continued)

FIG. 15b. AMOUNT OF 1 PER ANNUM. $s_{\overline{n}|i} = \dfrac{(1+i)^n - 1}{i}$

n	2%	2⅛%	2¼%	2⅜%	2½%
1	1.000 0000	1.000 0000	1.000 0000	1.000 0000	1.000 0000
2	2.020 0000	2.021 2500	2.022 5000	2.023 7500	2.025 0000
3	3.060 4000	3.064 2016	3.068 0062	3.071 8141	3.075 6250
4	4.121 6080	4.129 3158	4.137 0364	4.144 7696	4.152 5156
5	5.204 0402	5.217 0638	5.230 1197	5.243 2079	5.256 3285
6	6.308 1210	6.327 9264	6.347 7974	6.367 7341	6.387 7367
7	7.434 2834	7.462 3948	7.490 6228	7.518 9678	7.547 4302
8	8.582 9690	8.620 9707	8.659 1619	8.697 5433	8.736 1159
9	9.754 6284	9.804 1664	9.853 9930	9.904 1099	9.954 5188
10	10.949 7210	11.012 5049	11.075 7078	11.139 3326	11.203 3818
11	12.168 7154	12.246 5206	12.324 9113	12.403 8917	12.483 4663
12	13.412 0897	13.506 7592	13.602 2218	13.698 4841	13.795 5530
13	14.680 3315	14.793 7778	14.908 2718	15.023 8231	15.140 4418
14	15.973 9382	16.108 1456	16.243 7079	16.380 6389	16.518 9528
15	17.293 4169	17.450 4437	17.609 1913	17.769 6791	17.931 9267
16	18.639 2852	18.821 2656	19.005 3981	19.191 7090	19.380 2248
17	20.012 0710	20.221 2175	20.433 0196	20.647 5121	20.864 7304
18	21.412 3124	21.650 9184	21.892 7625	22.137 8905	22.386 3487
19	22.840 5586	23.111 0004	23.385 3497	23.663 6654	23.946 0074
20	24.297 3698	24.602 1092	24.911 5200	25.225 6774	25.544 6576
21	25.783 3172	26.124 9040	26.472 0292	26.824 7873	27.183 2740
22	27.298 9835	27.680 0582	28.067 6499	28.461 8760	28.862 8559
23	28.844 9632	29.268 2594	29.699 1720	30.137 8455	30.584 4273
24	30.421 8625	30.890 2100	31.367 4034	31.853 6194	32.349 0380
25	32.030 2997	32.546 6269	33.073 1700	33.610 1428	34.157 7639
26	33.670 9057	34.238 2427	34.817 3163	35.408 3837	36.011 7080
27	35.344 3238	35.965 8054	36.600 7059	37.249 3328	37.912 0007
28	37.051 2103	37.730 0788	38.424 2218	39.134 0045	39.859 8008
29	33.792 2345	39.531 8429	40.288 7668	41.063 4371	41.856 2958
30	40.568 0792	41.371 8946	42.195 2640	43.038 6937	43.902 7032
31	42.379 4408	43.251 0474	44.144 6575	45.060 8627	46.000 2707
32	44.227 0236	45.170 1321	46.137 9123	47.131 0582	48.150 2775
33	46.111 5702	47.129 9974	48.176 0153	49.250 4208	50.354 0344
34	48.033 8016	49.131 5099	50.259 9756	51.420 1183	52.612 8853
35	49.994 4776	51.175 5544	52.390 8251	53.641 3461	54.928 2074
36	51.994 3672	53.263 0350	54.569 6186	55.915 3281	57.301 4126
37	54.034 2545	55.394 8745	56.797 4351	58.243 3171	59.733 9479
38	56.114 9396	57.572 0156	59.075 3774	60.626 5959	62.227 2966
39	58.237 2384	59.795 4209	61.404 5733	63.066 4776	64.782 9791
40	60.401 9832	62.066 0736	63.786 1762	65.564 3064	67.402 5535
41	62.610 0228	64.384 9776	66.221 3652	68.121 4587	70.087 6174
42	64.862 2233	66.753 1584	68.711 3459	70.739 3433	72.839 8078
43	67.159 4678	69.171 6630	71.257 3512	73.419 4027	75.660 8030
44	69.502 6571	71.641 5609	73.860 6416	76.163 1135	78.552 3231
45	71.892 7103	74.163 9440	76.522 5060	78.971 9875	81.516 1312
46	74.330 5645	76.739 9278	79.244 2624	81.847 5722	84.554 0344
47	76.817 1758	79.370 6513	82.027 2583	84.791 4520	87.667 8853
48	79.353 5193	82.057 2777	84.872 8716	87.805 2490	90.859 5824
49	81.940 5897	84.800 9948	87.782 5113	90.890 6237	94.131 0720
50	84.579 4014	87.603 0160	90.757 6178	94.049 2760	97.484 3488
60	114.051 5394	119.116 0045	124.450 4349	130.070 2048	135.991 5900
70	149.977 9111	158.003 5281	166.539 6176	175.620 8000	185.284 1142
80	193.771 9578	205.991 3438	219.117 5688	233.222 2217	248.382 7126
90	247.156 6563	265.209 0632	284.798 1256	306.062 6266	329.154 2533
100	312.232 3059	338.284 6605	366.846 5021	398.173 6268	432.548 6540

Final Value of Annuity—(Continued)

FIG. 15c. AMOUNT OF 1 PER ANNUM. $s_{\overline{n}|i} = \frac{(1+i)^n - 1}{i}$

n	3%	3½%	4%	4¼%	4½%
1	1.000 0000	1.000 0000	1.000 0000	1.000 0000	1.000 0000
2	2.030 0000	2.035 0000	2.040 0000	2.042 5000	2.045 0000
3	3.090 9000	3.106 2250	3.121 6000	3.129 3062	3.137 0250
4	4.183 6270	4.214 9429	4.246 4640	4.262 3018	4.278 1911
5	5.309 1358	5.362 4659	5.416 3226	5.443 4496	5.470 7097
6	6.468 4099	6.550 1522	6.632 9755	6.674 7962	6.716 8917
7	7.662 4622	7.779 4075	7.898 2945	7.958 4750	8.019 1518
8	8.892 3360	9.051 6868	9.214 2263	9.296 7102	9.380 0136
9	10.159 1061	10.368 4958	10.582 7953	10.691 8204	10.802 1142
10	11.463 8793	11.731 3932	12.006 1071	12.146 2228	12.288 2094
11	12.807 7957	13.141 9919	13.486 3514	13.662 4372	13.841 1788
12	14.192 0296	14.601 9616	15.025 8055	15.243 0908	15.464 0318
13	15.617 7904	16.113 0303	16.626 8377	16.890 9222	17.159 9133
14	17.086 3242	17.676 9864	18.291 9112	18.608 7864	18.932 1094
15	18.598 9139	19.295 6809	20.023 5876	20.399 6598	20.784 0543
16	20.156 8813	20.971 0297	21.824 5311	22.266 6453	22.719 3367
17	21.761 5877	22.705 0158	23.697 5124	24.212 9778	24.741 7069
18	23.414 4354	24.499 6913	25.645 4129	26.242 0293	26.855 0837
19	25.116 8684	26.357 1805	27.671 2294	28.357 3156	29.063 5625
20	26.870 3745	28.279 6818	29.778 0786	30.562 5015	31.371 4228
21	28.676 4857	30.269 4707	31.969 2017	32.861 4078	33.783 1368
22	30.536 7803	32.328 9022	34.247 9698	35.258 0176	36.303 3780
23	32.452 8837	34.460 4137	36.617 8886	37.756 4834	38.937 0300
24	34.426 4702	36.666 5282	39.082 6041	40.361 1339	41.689 1963
25	36.459 2643	38.949 8567	41.645 9083	43.076 4821	44.565 2102
26	38.553 0422	41.313 1017	44.311 7446	45.907 2326	47.570 6446
27	40.709 6335	43.759 0602	47.084 2144	48.858 2900	50.711 3236
28	42.930 9225	46.290 6273	49.967 5830	51.934 7673	53.993 3332
29	45.218 8502	48.910 7993	52.966 2863	55.141 9949	57.423 0332
30	47.575 4157	51.622 6773	56.084 9378	58.485 5297	61.007 0697
31	50.002 6782	54.429 4710	59.328 3353	61.971 1647	64.752 3878
32	52.502 7585	57.334 5025	62.701 4687	65.604 9392	68.666 2452
33	55.077 8413	60.341 2100	66.209 5274	69.393 1491	72.756 2263
34	57.730 1765	63.453 1524	69.857 9085	73.342 3580	77.030 2565
35	60.462 0818	66.674 0127	73.652 2249	77.459 4082	81.496 6180
36	63.275 9443	70.007 6032	77.598 3138	81.751 4330	86.163 9658
37	66.174 2226	73.457 8693	81.702 2464	86.225 8690	91.041 3443
38	69.159 4493	77.028 8947	85.970 3363	90.890 4684	96.138 2048
39	72.234 2328	80.724 9060	90.409 1497	95.753 3133	101.464 4240
40	75.401 2597	84.550 2778	95.025 5157	100.822 8291	107.030 3231
41	78.663 2975	88.509 5375	99.826 5363	106.107 7993	112.846 6876
42	82.023 1964	92.607 3713	104.819 5978	111.617 3808	118.924 7885
43	85.483 8923	96.848 6293	110.012 3817	117.361 1195	125.276 4040
44	89.048 4091	101.238 3313	115.412 8770	123.348 9671	131.913 8422
45	92.719 8614	105.781 6729	121.029 3920	129.591 2982	138.849 9651
46	96.501 4572	110.484 0314	126.870 5677	136.098 9283	146.098 2135
47	100.396 5010	115.350 9726	132.945 3904	142.883 1328	153.672 6331
48	104.408 3960	120.388 2566	139.263 2060	149.955 6659	161.587 9016
49	108.540 6478	125.601 8456	145.833 7343	157.328 7817	169.859 3572
50	112.796 8673	130.997 9102	152.667 0837	165.015 2550	178.503 0283
60	163.053 4368	196.516 8829	237.990 6852	262.344 7398	289.497 9540
70	230.594 0637	288.937 8646	364.290 4588	409.917 1129	461.869 6796
80	321.363 0186	419.306 7868	551.244 9768	633.668 4800	729.557 6985
90	443.348 9036	603.205 0270	827.983 3335	972.923 5402	1145.269 0066
100	607.287 7327	862.611 6567	1237.623 7046	1487.306 9707	1790.855 9563

Final Value of Annuity—(Continued)

FIG. 15d. AMOUNT OF 1 PER ANNUM. $s_{\overline{n}|i} = \dfrac{(1+i)^n - 1}{i}$

n	4¾%	5%	6%	7%	8%
1	1.000 0000	1.000 0000	1.000 0000	1.000 0000	1.000 0000
2	2.047 5000	2.050 0000	2.060 0000	2.070 0000	2.080 0000
3	3.144 7562	3.152 5000	3.183 6000	3.214 9000	3.246 4000
4	4.294 1322	4.310 1250	4.374 6160	4.439 9430	4.506 1120
5	5.498 1034	5.525 6312	5.637 0930	5.750 7390	5.866 6010
6	6.759 2634	6.801 9128	6.975 3185	7.153 2907	7.335 9290
7	8.080 3284	8.142 0084	8.393 8376	8.654 0211	8.922 8034
8	9.464 1440	9.549 1089	9.897 4679	10.259 8026	10.636 6276
9	10.913 6908	11.026 5643	11.491 3160	11.977 9888	12.487 5578
10	12.432 0911	12.577 8925	13.180 7949	13.816 4480	14.486 5625
11	14.022 6154	14.206 7872	14.971 6426	15.783 5993	16.645 4875
12	15.688 6897	15.917 1265	16.869 9412	17.888 4513	18.977 1265
13	17.433 9024	17.712 9828	18.882 1377	20.140 6429	21.495 2966
14	19.262 0128	19.598 6320	21.015 0659	22.550 4879	24.214 9203
15	21.176 9584	21.578 5636	23.275 9699	25.129 0220	27.152 1139
16	23.182 8640	23.657 4918	25.672 5281	27.888 0536	30.324 2830
17	25.284 0500	25.840 3664	28.212 8798	30.840 2173	33.750 2257
18	27.485 0424	28.132 3847	30.905 6526	33.999 0325	37.450 2437
19	29.790 5819	30.539 0039	33.759 9917	37.378 9648	41.446 2632
20	32.205 6345	33.065 9541	36.785 5912	40.995 4923	45.761 9643
21	34.735 4022	35.719 2518	39.992 7267	44.865 1768	50.422 9214
22	37.385 3338	38.505 2144	43.392 2903	49.005 7392	55.456 7552
23	40.161 1371	41.430 4751	46.995 8277	53.436 1409	60.893 2956
24	43.068 7911	44.501 9989	50.815 5774	58.176 6708	66.764 7592
25	46.114 5587	47.727 0988	54.864 5120	63.249 0377	73.105 9400
26	49.305 0002	51.113 4538	59.156 3827	68.676 4704	79.954 4152
27	52.646 9877	54.669 1264	63.705 7657	74.483 8233	87.350 7684
28	56.147 7197	58.402 5828	68.528 1116	80.697 6909	95.338 8298
29	59.814 7363	62.322 7119	73.639 7983	87.346 5293	103.965 9362
30	63.655 9363	66.438 8475	79.058 1862	94.460 7863	113.283 2111
31	67.679 5933	70.760 7899	84.801 6774	102.073 0414	123.345 8680
32	71.894 3740	75.298 8294	90.889 7780	110.218 1543	134.213 5374
33	76.309 3567	80.063 7708	97.343 1647	118.933 4251	145.950 6204
34	80.934 0512	85.066 9594	104.183 7546	128.258 7648	158.626 6701
35	85.778 4186	90.320 3074	111.434 7799	138.236 8784	172.316 8037
36	90.852 8935	95.836 3227	119.120 8667	148.913 4598	187.102 1480
37	96.168 4059	101.628 1389	127.268 1187	160.337 4020	203.070 3198
38	101.736 4052	107.709 5458	135.904 2058	172.561 0202	220.315 9454
39	107.568 8845	114.095 0231	145.058 4581	185.640 2916	238.941 2210
40	113.678 4065	120.799 7742	154.761 9656	199.635 1120	259.056 5187
41	120.078 1308	127.839 7630	165.047 6836	214.609 5698	280.781 0402
42	126.781 8420	135.231 7511	175.950 5446	230.632 2397	304.243 5234
43	133.803 9795	142.993 3387	187.507 5772	247.776 4965	329.583 0053
44	141.159 6685	151.143 0056	199.758 0319	266.120 8512	3ɔ6.949 6457
45	148.864 7528	159.700 1559	212.743 5138	285.749 3108	386.505 6174
46	156.935 8285	168.685 1637	226.508 1246	306.751 7626	418.426 0668
47	165.390 2804	178.119 4218	241.098 6121	329.224 3860	452.900 1521
48	174.246 3187	188.025 3929	256.564 5288	353.270 0930	490.132 1643
49	183.523 0188	198.426 6626	272.958 4006	378.998 9995	530.342 7374
50	193.240 3622	209.347 9957	290.335 9046	406.528 9295	573.770 1564
60	319.785 5885	353.583 7179	533.128 1809	813.520 3834	1253.213 2958
70	521.058 8495	588.528 5107	967.932 1696	1614.134 1742	2720.080 0738
80	841.188 8678	971.228 8213	1746.599 8914	3189.062 6797	5886.935 4283
90	1350.363 4500	1594.607 3010	3141.075 1872	6287.185 4268	12723.938 o160
100	2160.218 0106	2610.025 1569	5638.368 0586	12381.661 7938	27484.515 7043

Final Value Formula.—The symbol for the final value of an ordinary annuity of \$1 per annum is $s_{\overline{n}|i}$ (read italic s sub n at $i\%$). The formula is

$$s_{\overline{n}|i} = \frac{(1+i)^n - 1}{i}$$

in which i = Interest rate
n = Number of periods

The numerator of the fraction is evidently the compound interest.

$$\text{Hence, } s_{\overline{n}|i} = \frac{\text{Compound interest}}{\text{Interest rate}}$$

The final value for any number of dollars is expressed by the following formula:

$$A_n = R\, s_{\overline{n}|i}$$

in which A = The final value of the annuity
R = Amount of each payment (rent)

Example. To find the amount of an annuity of \$2,000 received semi-annually for 10 years when invested at 4% per annum.

$$A_n = R \times s_{\overline{n}|i}$$

$$A_{20} = 2{,}000 \times s_{\overline{20}|.02}$$

$$= 2{,}000 \times 24.2973698 \quad \text{(Fig. 15b)}$$

$$A_{20} = \underline{\underline{\$48{,}594.74}}$$

Note that interest is at 2% per period for 20 periods; hence look for the value in the 2% column, line 20 of Fig. 15b.

Computation of Final Value by Logarithms.—Where the interest rate or the number of conversion periods is not found in the table, recourse must be had to solution by logarithms. The example below illustrates the method.

Example. Find the final value of an ordinary annuity of \$1,365 a year for 12 years at 3.2%.

$$A_{12} = 1{,}365 \times s_{\overline{12}|.032}$$

$$= 1{,}365 \times \frac{1.032^{12} - 1}{.032}$$

The first step is to find the value by logs of 1.032^{12} and then substitute it in the above fraction.

$$12 \log 1.032 = 12 \times .013680 = .164160$$

$$.164055 \ldots 1459$$

$$\frac{105}{298} = .4$$

$$1.032^{12} = 1.4594$$

$$A_{12} = 1{,}365 \times \frac{1.4594 - 1}{.032}$$
$$= \frac{1{,}365 \times .4594}{.032}$$
$$= \$19{,}596.28$$

SINKING FUND CALCULATIONS.—Sinking funds are commonly used to accumulate by periodic contributions, sufficient amounts for the extinction of a debt or the replacement of an asset. In the latter event, the fund is more generally referred to as a replacement fund. In either case the periodic payments are annuity rentals. Many bond issues of both private and municipal corporations are of the sinking fund type. The payments are usually turned over to a trustee or municipal sinking fund commission which invests these amounts and accumulates them to maturity. Note particularly that no part of the debt is extinguished until maturity even if the trustee invests his receipts in the bonds to be redeemed. In the latter case, he merely collects the coupons and adds the interest to the sinking fund just as in the case of investment in any other bonds.

There are two mathematical problems involved in the flotation of sinking fund bond issues. The first is one of determining what sum shall be set aside periodically to provide the required amount at maturity. The other problem is concerned with determining the life span of the bond issues once the size of the periodic sinking fund payment the corporation can afford to make is known. These are presented below.

Finding Amount of Sinking Fund Instalments.—Determination of the instalment or rent necessary to be set aside periodically is equivalent to finding R in the annuity formula.

$$A_n = R\, s_{\overline{n}|i}$$
$$R = \frac{A_n}{s_{\overline{n}|i}} = A_n \times \frac{1}{s_{\overline{n}|i}}$$

The second form of the formula is used when tables giving the value of $\frac{1}{s_{\overline{n}|i}}$ are available. The first is used when logarithms are necessary.

The value of $\frac{1}{s_{\overline{n}|i}}$ is obtained from a special table (Figs. 16a to 16d) which makes computation of the rent extremely simple. It represents the annuity that will amount to \$1 in n periods. However, Fig 16 does not give the values of $\frac{1}{s_{\overline{n}|i}}$ directly. It shows instead the values of $\frac{1}{a_{\overline{n}|i}}$, usually referred to as the annuity that \$1 will buy, that is, the

Fig. 16a. Annuity Which 1 Will Buy. $\frac{1}{a_{\overline{n}|i}}$

For annuity whose final value is 1 use Formula I, page 1200.

n	½%	1%	1¼%	1½%	1¾%
1	1.005 0000	1.010 0000	1.012 5000	1.015 0000	1.017 5000
2	.503 7531	.507 5124	.509 3944	.511 2779	.513 1630
3	.336 6722	.340 0221	.341 7012	.343 3830	.345 0675
4	.253 1328	.256 2811	.257 8610	.259 4448	.261 0324
5	.203 0100	.206 0398	.207 5621	.209 0893	.210 6214
6	.169 5955	.172 5484	.174 0338	.175 5252	.177 0226
7	.145 7285	.148 6283	.150 0887	.151 5562	.153 0306
8	.127 8289	.130 6903	.132 1331	.133 5840	.135 0429
9	.113 9074	.116 7404	.118 1706	.119 6098	.121 0581
10	.102 7706	.105 5821	.107 0031	.108 4342	.109 8754
11	.093 6590	.096 4541	.097 8684	.099 2938	.100 7304
12	.086 0664	.088 8488	.090 2583	.091 6800	.093 1138
13	.079 6422	.082 4148	.083 8210	.085 2404	.086 6728
14	.074 1361	.076 9012	.078 3052	.079 7233	.081 1556
15	.069 3644	.072 1238	.073 5265	.074 9444	.076 3774
16	.065 1894	.067 9446	.069 3467	.070 7651	.072 1996
17	.061 5058	.064 2581	.065 6602	.067 0796	.068 5162
18	.058 2317	.060 9820	.062 3848	.063 8058	.065 2449
19	.055 3025	.058 0518	.059 4555	.060 8785	.062 3206
20	.052 6664	.055 4153	.056 8204	.058 2457	.059 6912
21	.050 2816	.053 0308	.054 4375	.055 8655	.057 3146
22	.048 1138	.050 8637	.052 2724	.053 7033	.055 1564
23	.046 1346	.048 8858	.050 2967	.051 7308	.053 1880
24	.044 3206	.047 0735	.048 4866	.049 9241	.051 3856
25	.042 6519	.045 4068	.046 8225	.048 2634	.049 7295
26	.041 1116	.043 8689	.045 2873	.046 7320	.048 2021
27	.039 6856	.042 4455	.043 8668	.045 3153	.046 7908
28	.038 3617	.041 1244	.042 5486	.044 0011	.045 4815
29	.037 1291	.039 8950	.041 3223	.042 7788	.044 2642
30	.035 9789	.038 7481	.040 1785	.041 6392	.043 1298
31	.034 9030	.037 6757	.039 1094	.040 5743	.042 0700
32	.033 8945	.036 6709	.038 1079	.039 5771	.041 0781
33	.032 9473	.035 7274	.037 1679	.038 6414	.040 1478
34	.032 0559	.034 8400	.036 2839	.037 7619	.039 2736
35	.031 2155	.034 0037	.035 4511	.036 9336	.038 4508
36	.030 4219	.033 2143	.034 6653	.036 1524	.037 6751
37	.029 6714	.032 4680	.033 9227	.035 4144	.036 9426
38	.028 9604	.031 7615	.033 2198	.034 7161	.036 2499
39	.028 2861	.031 0916	.032 5536	.034 0546	.035 5940
40	.027 6455	.030 4556	.031 9214	.033 4271	.034 9721
41	.027 0363	.029 8510	.031 3206	.032 8311	.034 3817
42	.026 4562	.029 2756	.030 7491	.032 2643	.033 8206
43	.025 9032	.028 7274	.030 2047	.031 7246	.033 2867
44	.025 3754	.028 2044	.029 6856	.031 2104	.032 7781
45	.024 8712	.027 7050	.029 1901	.030 7198	.032 2932
46	.024 3889	.027 2278	.028 7168	.030 2512	.031 8304
47	.023 9273	.026 7711	.028 2641	.029 8034	.031 3884
48	.023 4850	.026 3338	.027 8307	.029 3750	.030 9657
49	.023 0609	.025 9147	.027 4156	.028 9648	.030 5612
50	.022 6538	.025 5127	.027 0176	.028 5717	.030 1739
60	.019 3328	.022 2444	.023 7899	.025 3934	.027 0534
70	.016 9666	.019 9328	.021 5194	.023 1724	.024 8893
80	.015 1970	.018 2188	.019 8465	.021 5483	.023 3209
90	.013 8253	.016 9031	.018 5715	.020 3211	.022 1476
100	.012 7319	.015 8657	.017 5743	.019 3706	.021 2488

Fig. 16b. Annuity Which 1 Will Buy. $\frac{1}{a_{\overline{n}|i}}$

For annuity whose final value is 1 use Formula I, page 1200.

n	2%	2⅛%	2¼%	2⅜%	2½%
1	1.020 0000	1.021 2500	1.022 5000	1.023 7500	1.025 0000
2	.515 0495	.515 9934	.516 9376	.517 8822	.518 8272
3	.346 7547	.347 5993	.348 4446	.349 2905	.350 1372
4	.262 6238	.263 4209	.264 2189	.265 0179	.265 8179
5	.212 1584	.212 9287	.213 7002	.214 4729	.215 2469
6	.178 5258	.179 2796	.180 0350	.180 7917	.181 5500
7	.154 5120	.155 2552	.156 0002	.156 7470	.157 4954
8	.136 5098	.137 2462	.137 9846	.138 7250	.139 4674
9	.122 5154	.123 2474	.123 9817	.124 7182	.125 4569
10	.111 3265	.112 0559	.112 7877	.113 5220	.114 2588
11	.102 1779	.102 9058	.103 6365	.104 3699	.105 1060
12	.094 5596	.095 2870	.096 0174	.096 7508	.097 4871
13	.088 1184	.088 8460	.089 5769	.090 3110	.091 0483
14	.082 6020	.083 3304	.084 0623	.084 7977	.085 5365
15	.077 8255	.078 5551	.079 2885	.080 0256	.080 7665
16	.073 6501	.074 3814	.075 1166	.075 8558	.076 5990
17	.069 9698	.070 7030	.071 4404	.072 1820	.072 9278
18	.066 7021	.067 4374	.068 1772	.068 9214	.069 6701
19	.063 7818	.064 5194	.065 2618	.066 0089	.066 7606
20	.061 1567	.061 8969	.062 6421	.063 3922	.064 1471
21	.058 7848	.059 5277	.060 2757	.061 0290	.061 7873
22	.056 6314	.057 3771	.058 1282	.058 8847	.059 6466
23	.054 6681	.055 4167	.056 1710	.056 9309	.057 6964
24	.052 8711	.053 6227	.054 3802	.055 1436	.055 9128
25	.051 2204	.051 9752	.052 7360	.053 5029	.054 2759
26	.049 6992	.050 4571	.051 2213	.051 9919	.052 7688
27	.048 2931	.049 0542	.049 8219	.050 5961	.051 3769
28	.046 9897	.047 7540	.048 5253	.049 3032	.050 0879
29	.045 7784	.046 5461	.047 3208	.048 1026	.048 8913
30	.044 6499	.045 4210	.046 1993	.046 9849	.047 7776
31	.043 5964	.044 3708	.045 1528	.045 9422	.046 7390
32	.042 6106	.043 3885	.044 1742	.044 9674	.045 7683
33	.041 6865	.042 4679	.043 2572	.044 0544	.044 8594
34	.040 8187	.041 6035	.042 3966	.043 1976	.044 0068
35	.040 0022	.040 7906	.041 5873	.042 3923	.043 2056
36	.039 2328	.040 0248	.040 8252	.041 6342	.042 4516
37	.038 5068	.039 3022	.040 1064	.040 9194	.041 7409
38	.037 8206	.038 6196	.039 4275	.040 2444	.041 0701
39	.037 1711	.037 9737	.038 7854	.039 6063	.040 4362
40	.036 5558	.037 3619	.038 1774	.039 0022	.039 8362
41	.035 9719	.036 7816	.037 6009	.038 4297	.039 2679
42	.035 4173	.036 2306	.037 0536	.037 8864	.038 7288
43	.034 8899	.035 7068	.036 5336	.037 3704	.038 2169
44	.034 3879	.035 2084	.036 0390	.036 8797	.037 7304
45	.033 9096	.034 7336	.035 5680	.036 4127	.037 2675
46	.033 4534	.034 2810	.035 1192	.035 9678	.036 8268
47	.033 0179	.033 8491	.034 6911	.035 5436	.036 4067
48	.032 6018	.033 4366	.034 2823	.035 1388	.036 0060
49	.032 2040	.033 0423	.033 8918	.034 7522	.035 6235
50	.031 8232	.032 6651	.033 5184	.034 3827	.035 2581
60	.028 7680	.029 6452	.030 5353	.031 4382	.032 3534
70	.026 6676	.027 5790	.028 5046	.029 4441	.030 3971
80	.025 1607	.026 1046	.027 0638	.028 0378	.029 0260
90	.024 0460	.025 0206	.026 0113	.027 0173	.028 0381
100	.023 2027	.024 2061	.025 2259	.026 2615	.027 3119

Fig. 16c. Annuity Which 1 Will Buy. $\frac{1}{a_{\overline{n}|i}}$

For annuity whose final value is 1 use Formula I, page 1200.

n	3%	3½%	4%	4¼%	4½%
1	1.030 0000	1.035 0000	1.040 0000	1.042 5000	1.045 0000
2	.522 6108	.526 4005	.530 1961	.532 0961	.533 9976
3	.353 5304	.356 9342	.360 3485	.362 0596	.363 7734
4	.269 0270	.272 2511	.275 4900	.277 1150	.278 7436
5	.218 3546	.221 4814	.224 6271	.226 2070	.227 7916
6	.184 5975	.187 6682	.190 7619	.192 3173	.193 8784
7	.160 5064	.163 5445	.166 6096	.168 1522	.169 7015
8	.142 4564	.145 4766	.148 5278	.150 0649	.151 6096
9	.128 4339	.131 4460	.134 4930	.136 0294	.137 5745
10	.117 2305	.120 2414	.123 2909	.124 8301	.126 3788
11	.108 0774	.111 0920	.114 1490	.115 6934	.117 2482
12	.100 4621	.103 4840	.106 5522	.108 1035	.109 6662
13	.094 0295	.097 0616	.100 1437	.101 7034	.103 2754
14	.088 5263	.091 5707	.094 6690	.096 2381	.097 8203
15	.083 7666	.086 8251	.089 9411	.091 5204	.093 1138
16	.079 6108	.082 6848	.085 8200	.087 4102	.089 0154
17	.075 9525	.079 0431	.082 1985	.083 8002	.085 4176
18	.072 7087	.075 8168	.078 9933	.080 6068	.082 2369
19	.069 8139	.072 9403	.076 1386	.077 7643	.079 4073
20	.067 2157	.070 3611	.073 5818	.075 2198	.076 8761
21	.064 8718	.068 0366	.071 2801	.072 9308	.074 6006
22	.062 7474	.065 9321	.069 1988	.070 8623	.072 5456
23	.060 8139	.064 0188	.067 3091	.068 9855	.070 6825
24	.059 0474	.062 2728	.065 5868	.067 2763	.068 9870
25	.057 4279	.060 6740	.064 0120	.065 7145	.067 4390
26	.055 9383	.059 2054	.062 5674	.064 2831	.066 0214
27	.054 5642	.057 8524	.061 2385	.062 9674	.064 7195
28	.053 2932	.056 6026	.060 0130	.061 7549	.063 5208
29	.052 1147	.055 4454	.058 8799	.060 6350	.062 4146
30	.051 0193	.054 3713	.057 8301	.059 5982	.061 3915
31	.049 9989	.053 3724	.056 8554	.058 6365	.060 4434
32	.049 0466	.052 4415	.055 9486	.057 7428	.059 5632
33	.048 1561	.051 5724	.055 1036	.056 9106	.058 7445
34	.047 3220	.050 7597	.054 3148	.056 1347	.057 9819
35	.046 5393	.049 9984	.053 5773	.055 4100	.057 2704
36	.045 8038	.049 2842	.052 8869	.054 7322	.056 6058
37	.045 1116	.048 6132	.052 2396	.054 0974	.055 9840
38	.044 4593	.047 9821	.051 6319	.053 5023	.055 4017
39	.043 8438	.047 3878	.051 0608	.052 9435	.054 8557
40	.043 2624	.046 8273	.050 5235	.052 4184	.054 3432
41	.042 7124	.046 2982	.050 0174	.051 9244	.053 8616
42	.042 1917	.045 7983	.049 5402	.051 4592	.053 4087
43	.041 6981	.045 3254	.049 0899	.051 0207	.052 9824
44	.041 2298	.044 8777	.048 6645	.050 6071	.052 5807
45	.040 7852	.044 4534	.048 2625	.050 2166	.052 2020
46	.040 3625	.044 0511	.047 8820	.049 8476	.051 8447
47	.039 9605	.043 6692	.047 5219	.049 4987	.051 5073
48	.039 5778	.043 3065	.047 1806	.049 1686	.051 1886
49	.039 2131	.042 9617	.046 8571	.048 8561	.050 8872
50	.038 8655	.042 6337	.046 5502	.048 5600	.050 6022
60	.036 1330	.040 0886	.044 2018	.046 3118	.048 4543
70	.034 3366	.038 4610	.042 7451	.044 9395	.047 1651
80	.033 1118	.037 3849	.041 8141	.044 0781	.046 3707
90	.032 2556	.036 6578	.041 2078	.043 5278	.045 8732
100	.031 6467	.036 1593	.040 8080	.043 1724	.045 5584

Fig. 16d. Annuity Which 1 Will Buy. $\frac{1}{a_{\overline{n}|i}}$

For annuity whose final value is 1 use Formula I, page 1200.

n	4¾%	5%	6%	7%	8%
1	1.047 5000	1.050 0000	1.060 0000	1.070 0000	1.080 0000
2	.535 9005	.537 8049	.545 4369	.553 0918	.560 7692
3	.365 4897	.367 2086	.374 1098	.381 0517	.388 0335
4	.280 3759	.282 0118	.288 5915	.295 2281	.301 9208
5	.229 3809	.230 9748	.237 3964	.243 8907	.250 4564
6	.195 4451	.197 0175	.203 3626	.209 7958	.216 3154
7	.171 2574	.172 8198	.179 1350	.185 5532	.192 0724
8	.153 1620	.154 7218	.161 0359	.167 4678	.174 0148
9	.139 1280	.140 6901	.147 0222	.153 4865	.160 0797
10	.127 9370	.129 5046	.135 8680	.142 3775	.149 0295
11	.118 8134	.120 3889	.126 7929	.133 3569	.140 0753
12	.111 2402	.112 8254	.119 2770	.125 9020	.132 6950
13	.104 8595	.106 4558	.112 9601	.119 6508	.126 5218
14	.099 4156	.101 0240	.107 5849	.114 3449	.121 2968
15	.094 7211	.096 3423	.102 9628	.109 7946	.116 8295
16	.090 6353	.092 2699	.098 9521	.105 8576	.112 9769
17	.087 0506	.088 6991	.095 4448	.102 4252	.109 6294
18	.083 8834	.085 5462	.092 3565	.099 4126	.106 7021
19	.081 0677	.082 7450	.089 6209	.096 7530	.104 1276
20	.078 5505	.080 2426	.087 1846	.094 3929	.101 8522
21	.076 2891	.077 9961	.085 0046	.092 2890	.099 8322
22	.074 2485	.075 9705	.083 0456	.090 4058	.098 0321
23	.072 3997	.074 1368	.081 2785	.088 7139	.096 4222
24	.070 7187	.072 4709	.079 6790	.087 1890	.094 9780
25	.069 1851	.070 9525	.078 2267	.085 8105	.093 6788
26	.067 7819	.069 5643	.076 9044	.084 5610	.092 5071
27	.066 4944	.068 2919	.075 6972	.083 4257	.091 4481
28	.065 3102	.067 1225	.074 5926	.082 3919	.090 4889
29	.064 2183	.066 0455	.073 5796	.081 4486	.089 6185
30	.063 2095	.065 0514	.072 6489	.080 5864	.088 8274
31	.062 2755	.064 1321	.071 7922	.079 7969	.088 1073
32	.061 4093	.063 2804	.071 0023	.079 0729	.087 4508
33	.060 6046	.062 4900	.070 2729	.078 4081	.086 8516
34	.059 8557	.061 7554	.069 5984	.077 7967	.086 3041
35	.059 1579	.061 0717	.068 9739	.077 2340	.085 8033
36	.058 5068	.060 4345	.068 3948	.076 7153	.085 3447
37	.057 8984	.059 8398	.067 8574	.076 2368	.084 9244
38	.057 3293	.059 2842	.067 3581	.075 7950	.084 5389
39	.056 7964	.058 7646	.066 8938	.075 3868	.084 1851
40	.056 2968	.058 2782	.066 4615	.075 0091	.083 8602
41	.055 8279	.057 8223	.066 0589	.074 6596	.083 5615
42	.055 3876	.057 3947	.065 6834	.074 3359	.083 2868
43	.054 9736	.056 9933	.065 3331	.074 0359	.083 0341
44	.054 5842	.056 6162	.065 0061	.073 7577	.082 8015
45	.054 2175	.056 2617	.064 7005	.073 4996	.082 5873
46	.053 8720	.055 9282	.064 4148	.073 2600	.082 3899
47	.053 5463	.055 6142	.064 1477	.073 0374	.082 2080
48	.053 2390	.055 3184	.063 8977	.072 8307	.082 0403
49	.052 9489	.055 0396	.063 6636	.072 6385	.081 8856
50	.052 6749	.054 7767	.063 4443	.072 4598	.081 7429
60	.050 6271	.052 8282	.061 8757	.071 2292	.080 7980
70	.049 4192	.051 6992	.061 0331	.070 6195	.080 3676
80	.048 6888	.051 0296	.060 5725	.070 3136	.080 1699
90	.048 2405	.050 6271	.060 3184	.070 1590	.080 0786
100	.047 9629	.050 3831	.060 1774	.070 0808	.080 0364

annuity whose present value is \$1. The same table may, however, be used to find both values because of the following relationship existing between them:

$$\frac{1}{a_{\overline{n}|i}} = \frac{1}{s_{\overline{n}|i}} + i.$$

Fig. 16 actually shows the values of $\frac{1}{a_{\overline{n}|i}}$. To find $\frac{1}{s_{\overline{n}|i}}$, use the following derived from the above equation:

$$\frac{1}{s_{\overline{n}|i}} = \frac{1}{a_{\overline{n}|i}} - i \qquad \text{(I)}$$

Hence to find $\frac{1}{s_{\overline{n}|i}}$, look in Fig. 16 and subtract the interest rate.

Example. A corporation on June 1, 1947 issued bonds due June 1, 1953, to the amount of \$200,000. Provision was made to set up a sinking fund to retire the entire issue by means of semiannual payments. If the fund earns 3% semiannually, what is the size of each instalment?

There are 12 payments compounded at 3% every 6 months.

$$R = A_{12} \times \frac{1}{s_{\overline{12}|.03}}$$

$$R = 200{,}000 \times .0704621 \quad \text{(Fig. 16c: } .1004621 - .03\text{)}$$
$$= \underline{\underline{\$14{,}092.42}}$$

Date	Semiannual Instalment	Interest at 3% on Accumulated Sinking Fund	Total Additions to Sinking Fund	Accumulated Amounts in Sinking Fund
June 1, 1947	.....	.....	.....	.....
December 1, 1947	\$ 14,092.42	.....	\$ 14,092.42	\$ 14,092.42
June 1, 1948	14,092.42	\$ 422.77	14,515.19	28,607.61
December 1, 1948	14,092.42	858.23	14,950.65	43,558.26
June 1, 1949	14,092.42	1,306.75	15,399.17	58,957.43
December 1, 1949	14,092.42	1,768.71	15,861.13	74,818.56
June 1, 1950	14,092.42	2,244.55	16,336.97	91,155.53
December 1, 1950	14,092.42	2,734.66	16,827.08	107,982.61
June 1, 1951	14,092.42	3,239.48	17,331.90	125,314.51
December 1, 1951	14,092.42	3,759.43	17,851.85	143,166.36
June 1, 1952	14,092.42	4,294.99	18,387.41	161,553.77
December 1, 1952	14,092.42	4,846.61	18,939.03	180,492.80
June 1, 1953	14,092.42	5,414.78	19,507.20	200,000.00
	\$169,109.04	\$30,890.96	\$200,000.00	

FIG. 17. Schedule of Sinking Fund Instalments

The schedule in Fig. 17 shows the periodic amounts set up and the interest earned on the accumulated balances in the sinking fund. The total semiannual instalments plus the accumulated interest earned by the sinking fund equal $200,000, the accumulated amount in the sinking fund June 1, 1953, the date of maturity of the bonds. Where logarithms are necessary. see solution later in this Section, page 1231.

Finding the Number of Payments to Sinking Fund.—A corporation floating a sinking fund bond issue needs to prepare a long-range budget to determine what it can spare for sinking fund payments. Once that is known, the time to build up the proper size sinking fund can easily be calculated. This involves finding the number of payments (n in the formula) from which the maturity of the bonds may be determined. The simplest solution is through interpolation in Figs. 15a, b, c, and d. For logarithmic solution, see presentation later in this Section, page 1230.

Example. A corporation wishes to raise $300,000 through the issuance of 5% sinking fund bonds. It can spare $50,000 a year for sinking fund purposes and interest on the bonds. If the fund earns 4½%, when should the bonds be made to mature?

Total annual payment	$50,000.00
Annual interest charge (300,000 × .05)	15,000.00
Sinking fund contribution	$35,000.00

$$s_{\overline{n}|.045} = 300{,}000 \div 35{,}000 = 8.5714286.$$

Now look in Fig. 15c in the 4½% column for an amount directly above and below the given figure. The time is evidently between 7 and 8 years. Since the results are approximations in any event, only four decimals are used.

	Tabular Difference	Given Difference
7 years	8.0192	8.0192
?		8.5714
8 years	9.3800	
	1.3608	.5522

$$n = 7 + \frac{.5522}{1.3608} = 7.41 \text{ years approximately}$$

Since bond maturities such as this are practically unknown, the borrower must decide whether the bonds are to mature in 8 or 7 years. If $50,000 represents the limit of what the borrower can spare, the maturity must be extended to 8 years, and the exact amount of R (sinking fund contribution) recalculated. If a maturity of 7 years is more desirable, the total annual burden will be greater than $50,000 and can easily be found by the formula for R.

FINAL VALUE OF ANNUITY DUE.—In the case of an annuity due, the payments are made at the beginning rather than at the close of the period. Hence the last payment earns interest for the period. The symbol for the final value of an annuity due of $1 is $s_{\overline{n}|i}$ (pronounced Roman s sub n at i%). The simplest formula for it is:

$$s_{\overline{n}|i} = s_{\overline{n+1}|} - 1.$$

This formula makes possible the use of the regular annuity tables as shown in the examples below.

Example. Find the final value of an annuity due of \$6,500 for 10 years at 3%.

$$A_{10}\text{ Due} = R\,s_{\overline{10}|.03}$$
$$= \$6{,}500 \times (s_{\overline{11}|.03} - 1)$$
$$= \$6{,}500 \times 11.8077957$$
$$= \$76{,}750.67$$

In looking up $s_{\overline{10}|.03}$, start in the 3% column in Fig. 15c, read the figure on the **eleventh** line, and subtract \$1.

PRESENT VALUE OF ORDINARY ANNUITY.—The present value of an annuity is an amount which represents the sum of the discounted or present values of a series of equal payments made at uniform time intervals. Note that the future payments are equal, but are discounted. Hence, each payment represents in part principal and in part interest on the remaining debt. This is in contrast to final value problems where payments are accumulated to wipe out a future debt at maturity. Hence, wherever the annuity payments represent principal and interest, the problem is one of present value.

The symbol to represent the present value of a single dollar per annum payable at the end of each year, i.e., an ordinary annuity of \$1, is $a_{\overline{n}|i}$ (read italic a sub n at i%). The formula is as follows:

$$a_{\overline{n}|i} = \frac{1 - \frac{1}{(1+i)^n}}{i}$$
$$= \frac{\text{Compound discount}}{\text{Interest rate}}$$

Figs. 18a to 18d show the present values represented by the above formula and may therefore be used to solve present value problems. The present value of any number of dollars is represented by the following formula:

$$A_0 = R\,a_{\overline{n}|i}$$

in which A_0 = The present value of R dollars
R = Amount of each annuity payment

Example. A corporation owning a patent with an 8-year life, receives a quarterly royalty in the amount of \$5,500. At what value shall it set up this asset upon its balance sheet, assuming that money is worth 5% per annum?

Fig. 18a shows the present value of an annuity of \$1 at 1¼% for 32 periods as 26.2412742.

$$\$5{,}500 \times 26.2412742 = \$144{,}327.01.$$

This is the required value of the asset.

Example 2. A lumber company signs a contract with a syndicate which owns in fee a large tract of timber land. The company agrees to cut 120,000,000 feet of timber a year for 6 years and to pay \$360,000 a year for the cut timber. The syndicate, desiring to anticipate the payments

FIG. 18a. PRESENT VALUE OF 1 PER ANNUM. $a_{\overline{n}|i} = \dfrac{1 - \dfrac{1}{(1+i)^n}}{i}$

n	½%	1%	1¼%	1½%	1¾%
1	.995 0249	.990 0990	.987 6543	.985 2217	.982 8010
2	1.985 0994	1.970 3951	1.963 1154	1.955 8834	1.948 6988
3	2.970 2481	2.940 9852	2.926 5337	2.912 2004	2.897 9840
4	3.950 4957	3.901 9656	3.878 0580	3.854 3846	3.830 9425
5	4.925 8663	4.853 4312	4.817 8350	4.782 6450	4.747 8551
6	5.896 3844	5.795 4765	5.746 0099	5.697 1872	4.648 9976
7	6.862 0740	6.728 1945	6.662 7258	6.598 2140	6.534 6414
8	7.822 9592	7.651 6778	7.568 1243	7.485 9251	7.405 0530
9	8.779 0639	8.566 0176	8.462 3450	8.360 5173	8.260 4943
10	9.730 4119	9.471 3045	9.345 5259	9.222 1846	9.101 2229
11	10.677 0267	10.367 6282	10.217 8034	10.071 1178	9.927 4918
12	11.618 9321	11.255 0775	11.079 3120	10.907 5052	10.739 5497
13	12.556 1513	12.133 7401	11.930 1847	11.731 5322	11.537 6410
14	13.488 7078	13.003 7030	12.770 5528	12.543 3815	12.322 0059
15	14.416 6246	13.865 0525	13.600 5459	13.343 2330	13.092 8805
16	15.339 9250	14.717 8738	14.420 2923	14.131 2640	13.850 4968
17	16.258 6319	15.562 2513	15.229 9183	14.907 6493	14.595 0828
18	17.172 7680	16.398 2686	16.029 5489	15.672 5609	15.326 8627
19	18.082 3562	17.226 0085	16.819 3076	16.426 1684	16.046 0567
20	18.987 4192	18.045 5530	17.599 3161	17.168 6388	16.752 8813
21	19.887 9792	18.856 9831	18.369 6950	17.900 1367	17.447 5492
22	20.784 0590	19.660 3793	19.130 5629	18.620 8244	18.130 2695
23	21.675 6806	20.455 8211	19.882 0374	19.330 8614	18.801 2476
24	22.562 8662	21.243 3873	20.624 2345	20.030 4054	19.460 6856
25	23.445 6380	22.023 1557	21.357 2686	20.719 6112	20.108 7820
26	24.324 0179	22.795 2037	22.081 2530	21.398 6317	20.745 7317
27	25.198 0278	23.559 6076	22.796 2992	22.067 6175	21.371 7264
28	26.067 6894	24.316 4432	23.502 5178	22.726 7167	21.986 9547
29	26.933 0242	25.065 7853	24.200 0176	23.376 0756	22.591 6017
30	27.794 0540	25.807 7082	24.888 9062	24.015 8380	23.185 8493
31	28.650 8000	26.542 2854	25.569 2901	24.646 1458	23.769 8765
32	29.503 2836	27.269 5895	26.241 2742	25.267 1387	24.343 8590
33	30.351 5259	27.989 6926	26.904 9622	25.878 9544	24.907 9695
34	31.195 5482	28.702 6659	27.560 4564	26.481 7285	25.462 3779
35	32.035 3713	29.408 5801	28.207 8582	27.075 5946	26.007 2510
36	32.871 0162	30.107 5050	28.847 2674	27.660 6843	26.542 7528
37	33.702 5037	30.799 5099	29.478 7826	28.237 1274	27.069 0446
38	34.529 8544	31.484 6633	30.102 5013	28.805 0516	27.586 2846
39	35.353 0890	32.163 0330	30.718 5198	29.364 5829	28.094 6286
40	36.172 2279	32.834 6861	31.326 9332	29.915 8452	28.594 2296
41	36.987 2914	33.499 6892	31.927 8352	30.458 9608	29.085 2379
42	37.798 2999	34.158 1081	32.521 3187	30.994 0500	29.567 8014
43	38.605 2735	34.810 0081	33.107 4753	31.521 2316	30.042 0652
44	39.408 2324	35.455 4535	33.686 3954	32.040 6222	30.508 1722
45	40.207 1964	36.094 5084	34.258 1682	32.552 3372	30.966 2626
46	41.002 1855	36.727 2361	34.822 8822	33.056 4898	31.416 4743
47	41.793 2194	37.353 6991	35.380 6244	33.553 1920	31.858 9428
48	42.580 3178	37.973 9595	35.931 4809	34.042 5536	32.293 8013
49	43.363 5003	38.588 0787	36.475 5367	34.524 6834	32.721 1806
50	44.142 7864	39.196 1175	37.012 8757	34.999 6881	33.141 2095
60	51.725 5608	44.955 0384	42.034 5918	39.380 2689	36.963 9855
70	58.939 4176	50.168 5144	46.469 6756	43.154 8718	40.177 9027
80	65.802 3054	54.888 2061	50.386 6571	46.407 3235	42.879 9347
90	72.331 2996	59.160 8815	53.846 0604	49.209 8545	45.151 6104
100	78.542 6448	63.028 8788	56.901 3394	51.624 7037	47.061 4730

FIG. 18b. PRESENT VALUE OF 1 PER ANNUM. $a_{\overline{n}|i} = \dfrac{1 - \dfrac{1}{(1+i)^n}}{i}$

n	2%	2⅛%	2¼%	2⅜%	2½%
1	.980 3922	.979 1922	.977 9951	.976 8010	.975 6098
2	1.941 5609	1.938 0095	1.934 4696	1.930 9411	1.927 4242
3	2.883 8833	2.876 8758	2.869 8969	2.862 9462	2.856 0236
4	3.807 7287	3.796 2065	3.784 7402	3.773 3296	3.761 9742
5	4.713 4595	4.696 4078	4.679 4525	4.662 5930	4.645 8285
6	5.601 4309	5.577 8779	5.554 4768	5.531 2264	5.508 1254
7	6.471 9911	6.441 0065	6.410 2463	6.379 7083	6.349 3906
8	7.325 4814	7.286 1753	7.247 1846	7.208 5063	7.170 1372
9	8.162 2367	8.113 7579	8.065 7062	8.018 0769	7.970 8655
10	8.982 5850	8.924 1204	8.866 2164	8.808 8664	8.752 0639
11	9.786 8480	9.717 6209	9.649 1113	9.581 3102	9.514 2087
12	10.575 3412	10.494 6104	10.414 7788	10.335 8342	10.257 7646
13	11.348 3738	11.255 4325	11.163 5979	11.072 8539	10.983 1850
14	12.106 2488	12.000 4235	11.895 9392	11.792 7755	11.690 9122
15	12.849 2635	12.729 9129	12.612 1655	12.495 9956	12.381 3777
16	13.577 7093	13.444 2231	13.312 6313	13.182 9017	13.055 0027
17	14.291 8719	14.143 6701	13.997 6834	13.853 8722	13.712 1977
18	14.992 0312	14.828 5632	14.667 6611	14.509 2769	14.353 3636
19	15.678 4620	15.499 2051	15.322 8959	15.149 4768	14.978 8913
20	16.351 4333	16.155 8923	15.963 7124	15.774 8247	15.589 1623
21	17.011 2092	16.798 9154	16.590 4278	16.385 6652	16.184 5486
22	17.658 0482	17.428 5585	17.203 3523	16.982 3347	16.765 4132
23	18.292 2041	18.045 1002	17.802 7896	17.565 1621	17.332 1105
24	18.913 9256	18.648 8129	18.389 0362	18.134 4685	17.884 9858
25	19.523 4565	19.239 9636	18.962 3826	18.690 5675	18.424 3764
26	20.121 0358	19.818 8138	19.523 1126	19.233 7656	18.950 6111
27	20.706 8978	20.385 6194	20.071 5038	19.764 3620	19.464 0109
28	21.281 2724	20.940 6310	20.607 8276	20.282 6491	19.964 8887
29	21.844 3847	21.484 0940	21.132 3498	20.788 9124	20.453 5499
30	22.396 4556	22.016 2487	21.645 3298	21.283 4309	20.930 2926
31	22.937 7015	22.537 3305	22.147 0219	21.766 4771	21.395 4074
32	23.468 3348	23.047 5696	22.637 6742	22.238 3171	21.849 1780
33	23.988 5636	23.547 1918	23.117 5298	22.699 2108	22.291 8809
34	24.498 5917	24.036 4179	23.586 8262	23.149 4123	22.723 7863
35	24.998 6193	24.515 4643	24.045 7958	23.589 1695	23.145 1573
36	25.488 8425	24.984 5428	24.494 6658	24.018 7248	23.556 2511
37	25.969 4534	25.443 8607	24.933 6585	24.438 3148	23.957 3181
38	26.440 6406	25.893 6213	25.362 9912	24.848 1707	24.348 6030
39	26.902 5888	26.334 0233	25.782 8765	25.248 5184	24.730 3444
40	27.354 3792	26.765 2615	26.193 5222	25.639 5784	25.102 7750
41	27.799 4894	27.187 5265	26.595 1317	26.021 5662	25.466 1220
42	28.234 7936	27.601 0052	26.987 9039	26.394 6923	25.820 6068
43	28.661 5623	28.005 8802	27.372 0332	26.759 1622	26.166 4457
44	29.079 9631	28.402 3307	27.747 7097	27.115 1768	26.503 8494
45	29.490 1599	28.790 5319	28.115 1195	27.462 9321	26.833 0239
46	29.892 3136	29.170 6555	28.474 4445	27.802 6199	27.154 1696
47	30.286 5820	29.542 8695	28.825 8626	28.134 4272	27.467 4826
48	30.673 1196	29.907 3385	29.169 5478	28.458 5370	27.773 1537
49	31.052 0780	30.264 2238	29.505 6702	28.775 1277	28.071 3695
50	31.423 6059	30.613 6830	29.834 3963	29.084 3738	28.362 3117
60	34.760 8867	33.732 2993	32.748 9528	31.808 4816	30.908 6565
70	37.498 6193	36.259 5088	35.082 0849	33.962 6772	32.897 8570
80	39.744 5136	38.307 4645	36.949 7808	35.666 1923	34.451 8172
90	41.586 9292	39.967 0508	38.444 8902	37.013 3140	35.665 7685
100	43.098 3516	41.311 9173	39.641 7405	38.078 6036	36.614 1053

FIG. 18c. PRESENT VALUE OF 1 PER ANNUM. $a_{\overline{n}|i} = \dfrac{1 - \dfrac{1}{(1+i)^n}}{i}$

n	3%	3½%	4%	4¼%	4½%
1	.970 8738	.966 1836	.961 5385	.959 2326	.956 9378
2	1.913 4697	1.899 6943	1.886 0947	1.879 3598	1.872 6678
3	2.828 6114	2.801 6370	2.775 0910	2.761 9758	2.748 9644
4	3.717 0984	3.673 0792	3.629 8952	3.608 6099	3.587 5257
5	4.579 7072	4.515 0524	4.451 8223	4.420 7290	4.389 9767
6	5.417 1914	5.328 5530	5.242 1369	5.199 7400	5.157 8725
7	6.230 2830	6.114 5440	6.002 0547	5.946 9928	5.892 7009
8	7.019 6922	6.873 9555	6.732 7449	6.663 7821	6.595 8861
9	7.786 1089	7.607 6865	7.435 3316	7.351 3497	7.268 7905
10	8.530 2028	8.316 6053	8.110 8958	8.010 8870	7.912 7182
11	9.252 624	9.001 5510	8.760 4767	8.643 5367	8.528 9169
12	9.954 0040	9.663 3343	9.385 0738	9.250 3949	9.118 5808
13	10.634 9553	10.302 7385	9.985 6478	9.832 5131	9.682 8524
14	11.296 0731	10.920 5203	10.563 1229	10.390 8999	10.222 8253
15	11.937 9351	11.517 4109	11.118 3874	10.926 5226	10.739 5457
16	12.561 1020	12.094 1168	11.652 2956	11.440 3095	11.234 0150
17	13.166 1185	12.651 3206	12.165 6688	11.933 1506	11.707 1914
18	13.753 5131	13.189 6817	12.659 2970	12.405 8998	12.159 9918
19	14.323 7991	13.709 8374	13.133 9394	12.859 3764	12.593 2936
20	14.877 4749	14.212 4033	13.590 3263	13.294 3658	13.007 9364
21	15.415 0241	14.697 9742	14.029 1600	13.711 6219	13.404 7239
22	15.936 9166	15.167 1248	14.451 1153	14.111 8675	13.784 4248
23	16.443 6084	15.620 4105	14.856 8417	14.495 7962	14.147 7749
24	16.935 5421	16.058 3676	15.246 9631	14.864 0731	14.495 4784
25	17.413 1477	16.481 5146	15.622 0799	15.217 3363	14.828 2090
26	17.876 8424	16.890 3523	15.982 7692	15.556 1979	15.146 6114
27	18.327 0315	17.285 3645	16.329 5858	15.881 2450	15.451 3028
28	18.764 1082	17.667 0188	16.663 0632	16.193 0407	15.742 8735
29	19.188 4546	18.035 7670	16.983 7146	16.492 1254	16.021 8885
30	19.600 4414	18.392 0454	17.292 0333	16.779 0172	16.288 8885
31	20.000 4285	18.736 2758	17.588 4936	17.054 2131	16.544 3910
32	20.388 7655	19.068 8655	17.873 5515	17.318 1900	16.788 8909
33	20.765 7918	19.390 2082	18.147 6457	17.571 4053	17.022 8621
34	21.131 8367	19.700 6842	18.411 1978	17.814 2977	17.246 7580
35	21.487 2201	20.000 6611	18.664 6132	18.047 2879	17.461 0124
36	21.832 2525	20.290 4938	18.908 2820	18.270 7798	17.666 0406
37	22.167 2354	20.570 5254	19.142 5788	18.485 1605	17.862 2398
38	22.492 4616	20.841 0874	19.367 8642	18.690 8014	18.049 9902
39	22.808 2151	21.102 4999	19.584 4848	18.888 0589	18.229 6557
40	23.114 7720	21.355 0723	19.792 7739	19.077 2747	18.401 5844
41	23.412 4000	21.599 1037	19.993 0518	19.258 7767	18.566 1095
42	23.701 3592	21.834 8828	20.185 6267	19.432 8793	18.723 5498
43	23.981 9021	22.062 6887	20.370 7949	19.599 8843	18.874 2103
44	24.254 2739	22.232 7910	20.548 8413	19.760 0808	19.018 3830
45	24.518 7125	22.495 4503	20.720 0397	19.913 7466	19.156 3474
46	24.775 4491	22.700 9181	20.884 6536	20.061 1478	19.288 3707
47	25.024 7078	22.899 4378	21.042 9361	20.202 5399	19.414 7088
48	25.266 7066	23.091 2442	21.195 1309	20.338 1677	19.535 6065
49	25.501 6569	23.276 5645	21.341 4720	20.468 2664	19.651 2981
50	25.729 7640	23.455 6179	21.482 1846	20.593 0613	19.762 0078
60	27.675 5637	24.944 7341	22.623 4900	21.592 7791	20.638 0220
70	29.123 4214	26.000 3966	23.394 5150	22.252 1303	21.202 1119
80	30.200 7634	26.748 7757	23.915 3918	22.686 9970	21.565 3449
90	31.002 4071	27.279 3156	24.267 2776	22.973 8078	21.799 2408
100	31.598 9053	27.655 4254	24.504 9990	23.162 9702	21.949 8527

FIG. 18d. PRESENT VALUE OF 1 PER ANNUM. $a_{\overline{n}|i} = \dfrac{1 - \dfrac{1}{(1+i)^n}}{i}$

n	4¾%	5%	6%	7%	8%
1	.954 6539	.952 3810	.943 3962	.934 5794	.925 9259
2	1.866 0181	1.859 4104	1.833 3927	1.808 0182	1.783 2648
3	2.736 0554	2.723 2480	2.673 0120	2.624 3160	2.577 0970
4	3.566 6400	3.545 9505	3.465 1056	3.387 2113	3.312 1268
5	4.359 5609	4.329 4767	4.212 3638	4.100 1974	3.992 7100
6	5.116 5259	5.075 6921	4.917 3243	4.766 5397	4.622 8797
7	5.839 1656	5.786 3734	5.582 3814	5.389 2894	5.206 3701
8	6.529 0363	6.463 2128	6.209 7938	5.971 2085	5.746 6389
9	7.187 6242	7.107 8217	6.801 6923	6.515 2322	6.246 8879
10	7.816 3477	7.721 7349	7.360 0870	7.023 5816	6.710 0814
11	8.416 5610	8.306 4142	7.886 8746	7.498 6744	7.138 9643
12	8.989 5571	8.863 2516	8.383 8439	7.942 6863	7.536 0780
13	9.536 5700	9.393 5730	8.852 6830	8.357 6508	7.903 7759
14	10.058 7780	9.898 6409	9.294 9839	8.745 4680	8.244 2370
15	10.557 3060	10.379 6580	9.712 2490	9.107 9140	8.559 4787
16	11.033 2277	10.837 7696	10.105 8953	9.446 6486	8.851 3692
17	11.487 5682	11.274 0662	10.477 2597	9.763 2230	9.121 6381
18	11.921 3062	11.689 5869	10.827 6035	10.059 0869	9.371 8871
19	12.335 3758	12.085 3209	11.158 1165	10.335 5952	9.603 5992
20	12.730 6690	12.462 2103	11.469 9212	10.594 0143	9.818 1474
21	13.108 0372	12.821 1527	11.764 0766	10.835 5273	10.016 8032
22	13.468 2933	13.163 0026	12.041 5817	11.061 2405	10.200 7437
23	13.812 2132	13.488 5739	12.303 3790	11.272 1874	10.371 0590
24	14.140 5376	13.798 6418	12.550 3575	11.469 3340	10.528 7583
25	14.453 9739	14.093 9446	12.783 3562	11.653 5832	10.674 7762
26	14.753 1970	14.375 1853	13.003 1662	11.825 7787	10.809 9780
27	15.038 8516	14.643 0336	13.210 5341	11.986 7090	10.935 1648
28	15.311 5528	14.898 1273	13.406 1643	12.137 1113	11.051 0785
29	15.571 8881	15.141 0736	13.590 7210	12.277 6741	11.158 4060
30	15.820 4183	15.372 4510	13.764 8312	12.409 0412	11.257 7833
31	16.057 6785	15.592 8105	13.929 0860	12.531 8142	11.349 7994
32	16.284 1800	15.802 6767	14.084 0434	12.646 5553	11.434 9994
33	16.500 4105	16.002 5492	14.230 2296	12.753 7900	11.513 8884
34	16.706 8358	16.192 9040	14.368 1411	12.854 0094	11.586 9337
35	16.903 9005	16.374 1943	14.498 2446	12.947 6723	11.654 5682
36	17.092 0291	16.546 8517	14.620 9871	13.035 2078	11.717 1928
37	17.271 6269	16.711 2873	14.736 7803	13.117 0166	11.775 1785
38	17.443 0805	16.867 8927	14.846 0192	13.193 4735	11.828 8690
39	17.606 7595	17.017 0407	14.949 0747	13.264 9285	11.878 5824
40	17.763 0162	17.159 0864	15.046 2969	13.331 7088	11.924 6133
41	17.912 1873	17.294 3680	15.138 0159	13.394 1204	11.967 2346
42	18.054 5941	17.423 2076	15.224 5433	13.452 4490	12.006 6987
43	18.190 5433	17.545 9120	15.306 1729	13.506 9617	12.043 2395
44	18.320 3277	17.662 7733	15.383 1820	13.557 9081	12.077 0736
45	18.444 2269	17.774 0698	15.455 8321	13.605 5216	12.108 4015
46	18.562 5078	17.880 0665	15.524 3699	13.650 0202	12.137 4088
47	18.675 4251	17.981 0157	15.589 0282	13.691 6076	12.164 2674
48	18.783 2221	18.077 1578	15.650 0266	13.730 4744	12.189 1365
49	18.886 1308	18.168 7217	15.707 5723	13.766 7986	12.212 1634
50	18.984 3731	18.255 9255	15.761 8606	13.800 7463	12.233 4846
60	19.752 2689	18.929 2895	16.161 4277	14.039 1812	12.376 5518
70	20.235 0630	19.342 6766	16.384 5439	14.160 3893	12.442 8196
80	20.538 6070	19.596 4605	16.509 1308	14.222 0054	12.473 5144
90	20.729 4523	19.752 2617	16.578 6994	14.253 3279	12.487 7320
100	20.849 4412	19.847 9102	16.617 5462	14.269 2507	12.494 3176

under its contract, applies to its bankers for the cash value of the contract, offering as security the contract itself and a mortgage on the timber land. What is the present worth of the contract calculated on a 4% basis?

$$A_0 = 360{,}000 \times a_{\overline{6}|.04}$$
$$= \$360{,}000 \times 5.2421369$$
$$= \$1{,}887{,}169.28$$

This answer represents the amount the syndicate can borrow on its contract. This means that six annual payments of $360,000 will pay off the loan and the interest on the outstanding balances. The proof is submitted in Fig. 19 which shows the amortization of the loan.

Year	Amount Outstanding at Beginning of Period	Interest at 4% on Outstanding Balance	Annuity Payment	Principal Repaid
1	$1,887,169.28	$ 75,486.77	$ 360,000.00	$ 284 513.23
2	1,602,656.05	64,106.24	360,000.00	295,893.76
3	1,306,762.29	52,270.49	360,000.00	307,729.51
4	999,032.78	39,961.31	360,000.00	320,038.69
5	678,994.09	27,159.76	360,000.00	332,840.24
6	346,153.85	13,846.15	360,000.00	346,153.85
		$272,830.72	$2,160,000.00	$1,887,169.28

Fig. 19. Proof of Amortization of Loan

ANNUITY WHICH $1 WILL BUY.—The annuity which $1 will buy is equivalent to a series of annuity payments the sum of whose present values is $1. This type of problem is found where the size of the annuity rent (R) is to be determined. The formula is as follows:

$$R = A_0 \times \frac{1}{a_{\overline{n}|i}}$$

The fraction is the reciprocal of the present value of $1 and represents the annuity that $1 will purchase. Special tables are available and these make the computation quite easy. Figs. 16a to 16d show the values of the above fraction whose use is illustrated below.

Example 1. Mr. X buys a property for $25,000, agreeing to pay $2,500 down and the balance in 15 equal annual instalments which include interest at 5%. What is the size of each instalment?

The debt amounts to $22,500 after deduction of the down payment.

$$R = A_0 \times \frac{1}{a_{\overline{n}|i}}$$
$$= \$22{,}500 \times \frac{1}{a_{\overline{15}|.05}}$$
$$= \$22{,}500 \times .0963423$$
$$= \$2{,}167.70$$

Example 2. The Steel Wire Co. floated a $300,000, 6% bond issue on May 1, 1946, due May 1, 1954. Interest is payable semiannually; the bonds are in denominations of $1,000, and callable at par and accrued interest. What is the standard rent that will wipe out the debt and interest?

$$R = A_0 \times \frac{1}{a_{\overline{16}|.03}}$$
$$= 300{,}000 \times .0796108$$
$$= \$23{,}883.24$$

In Fig. 20 is shown a table of bond retirements. Since the bonds are issued in fixed denominations, the total semiannual charge cannot be exactly as stated above, but should be kept as near that figure as possible. Thus on November 1, 1946, $9,000 of the $23,833.24 is due as interest and the balance of $14,883.25 can be applied against principal outstanding. But the bonds must be retired in even amounts; in this case fifteen bonds are retired. As a result, the first year involves an expenditure of $24,000 instead of $23,983. The excess payment is reflected in the column showing the excess or deficiency of any one period. A cumulative column is also provided; the purpose is to keep the cumulative error as low as possible. In the case of a $1,000 bond the maximum deviation from the standard charge should not exceed ± $500, that is, half the value of the bond. In case the cumulative error threatens to become more than $500, it is best to redeem one bond more or less, so as to keep the error within the stated limits.

FINDING THE NUMBER OF PAYMENTS TO AMORTIZE A LOAN.—Where the amount that can be spared for principal and interest is known, the borrower must also know how long it will take to amortize the debt. This involves finding n, that is, the number of payments to be made.

Example. The Brass Fixture Co. on July 1, 1945 issued $300,000, 6% bonds, interest payable semiannually. The bonds are in denominations of $1,000 and are to be redeemed at par and accrued interest. How long will it take to pay them off if the corporation has budgeted $25,000 each period for interest and bond redemption?

$$R = \frac{A_0}{a_{\overline{n}|i}}$$
$$25{,}000 = \frac{300{,}000}{a_{\overline{n}|.03}}$$
$$a_{\overline{n}|.03} = \frac{300{,}000}{25{,}000} = 12$$

Now look for the nearest values in the 3% column of Fig. 18c and interpolate. Evidently n lies between 15 and 16 periods.

15 years	11.9379	11.9379
n years		12.0000
16 years	12.5611	
Tabular difference	.6232	
Given difference		.0621

$$n = 15 + \frac{621}{6{,}232} = 15.1 \text{ semiannual periods.}$$

The value of n may also be found by logs. See presentation later.

Date	Outstanding	Interest at 3%	Amount Retired	Amount to Pay Interest and Retire Bonds	Number of Bonds Retired	Over(+) and Short(—)	
						Current	Cumulative
May 1, 1946	$300,000	.....	.....	.....	..	.....	.....
November 1, 1946	285,000	$ 9,000	$ 15,000	$ 24,000	15	+117	+117
May 1, 1947	270,000	8,550	15,000	23,550	15	—333	—216
November 1, 1947	254,000	8,100	16,000	24,100	16	+217	+ 1
May 1, 1948	238,000	7,620	16,000	23,620	16	—263	—262
November 1, 1948	221,000	7,140	17,000	24,140	17	+257	— 5
May 1, 1949	204,000	6,630	17,000	23,630	17	—253	—258
November 1, 1949	186,000	6,120	18,000	24,120	18	+237	— 21
May 1, 1950	168,000	5,580	18,000	23,580	18	—303	—324
November 1, 1950	149,000	5,040	19,000	24,040	19	+157	—167
May 1, 1951	129,000	4,470	20,000	24,470	20	+587	+420
November 1, 1951	109,000	3,870	20,000	23,870	20	— 13	+407
May 1, 1952	89,000	3,270	20,000	23,270	20	—613	—206
November 1, 1952	68,000	2,670	21,000	23,670	21	—213	—419
May 1, 1953	46,000	2,040	22,000	24,040	22	+157	—262
November 1, 1953	23,000	1,380	23,000	24,380	23	+497	+235
May 1, 1954	.....	690	23,000	23,690	23	—193	+ 42
		$82,170	$300,000	$382,170	300		

FIG. 20. Schedule of Interest Payments and Bond Retirements for Serial Bond Issue

PRESENT VALUE OF ANNUITY DUE.—The symbol for the present value of an annuity due of \$1 per period is $a_{\overline{n}|i}$ (pronounced Roman a sub n at $i\%$). The formula is as follows:

$$a_{\overline{n}|i} = a_{\overline{n-1}|i} + 1$$

This means that the present value tables for ordinary annuities (Fig. 18) may be used in computing the present value of an annuity due. For instance, if $a_{\overline{12}|.03}$ is wanted, it can be found by looking in the 3% column of Fig. 18c on line 11 and adding \$1. In this case the answer is 10.2526241.

Example. What is the cash value of a lease that has 7 years to run and which calls for rentals of \$1,365 quarterly, payable in advance? Assume money is worth 4% per annum, compounded quarterly.

The lease has 28 periods to run and is discounted at 1% per period. Since payments are made in advance it is an annuity due.

$$\begin{aligned} A_0 \text{ Due} &= R\, a_{\overline{28}|.01} \\ &= 1{,}365\ (a_{\overline{27}|.01} + 1) \\ &= 1{,}365 \times 24.5596076 \\ &= \$33{,}523.86 \end{aligned}$$

Bond Valuation

DEFINITIONS.—The following definitions are in order:

Bond.—A bond may be defined as a long-time promissory note under seal. It promises to pay to the owner of the bond a specified principal sum called the face value on a definite date in the future, called the maturity date. It also promises to redeem the coupons representing interest based on the face value on their respective interest rates.

The **par value** of a bond is the amount stated on its face. The **redemption value** is the price at which the bond will be redeemed. In many issues this is the same as the par value; in others, premiums are paid when bonds are redeemed before or at maturity.

Premium and Discount on Bonds.—When bonds sell at a price greater than par, they are said to sell at a **premium,** and when at a price less than par they are said to sell at a **discount.**

Nominal and Effective Interest Rates.—The nominal rate, also known as the **coupon rate** or the **cash rate,** is the rate, based on the par value, stipulated in the bond.

The **effective rate,** also called the **yield** or **market rate,** is the return which the bonds earn on the price at which they are purchased if they are held to maturity. Note that the yield is based on the price paid for the bond, not on its par value. When the nominal rate is in excess of the yield rate, that is, in excess of what in the opinion of the market is considered a fair rate of return for that type of security, the bond sells at a **premium.** When the bond rate is less than the yield rate, the

bond sells at a **discount.** The amount of the premium can be mathematically determined and is based on principles of compound interest and annuities.

DETERMINING BASIS PRICE OF BONDS.—The price at which a bond will sell in the open market depends on a number of factors:

1. The security for the payment of the principal and interest.
2. The bond rate.
3. The rate realized by like investments, or to be realized by the investor.
4. The time to the maturity of the bond.
5. The price at which the bond will be redeemed.

From a purely mathematical point of view, once the desired yield is known, the basis price, that is, the purchase price, of a bond depends on two factors:

1. The present value of the principal.
2. The present value of the coupons.

The sum of these two present values represents the basis price of the bond. The first factor represents the present value of a lump sum, the second the present value of an annuity.

Example. What is the price paid by Mr. X for 100 bonds paying 5% nominal to yield 4½%, on November 1, 1945. The bonds pay interest May and November 1 and mature November 1, 1948.

The nominal rate per period is 2½%, the effective rate 2¼%.

I. The present value of the principal six periods from now is

$$P = A \times v^n$$
$$P = 100{,}000 \times v^6 \text{ at } 2\tfrac{1}{4}\%$$
$$= \$100{,}000 \times .8750243 \quad \text{(Fig. 14b)}$$
$$= \underline{\underline{\$87.502.43}}$$

II. The present value of the coupons is calculated by means of the annuity formula. The size of each coupon is determined from the nominal rate. In this example, each semiannual coupon has a face value of $2,500 (i.e., $100,000 × 2½%). The present value of all coupons is then found:

$$A_0 = R\,a_{\overline{n}|i}$$
$$= 2{,}500 \times a_{\overline{6}|.02\frac{1}{4}}$$
$$= 2.500 \times 5.5544768 \quad \text{(Fig. 18b)}$$
$$= \underline{\underline{\$13{,}886.19}}$$

Basis price of bond:

$$\$87{,}502.43 + 13{,}886.19 = \underline{\underline{\$101{,}388.62}}$$

Note that the yield rate is always used except for calculating the amount of each coupon.

Short Method for Finding Basis Price.—Since the difference between the coupon and yield rates gives rise to premium or discount on bonds, it is possible to compute the premium and hence the basis price, directly from such difference. This method is illustrated below, using the same example as above.

		Rate	Amount
Nominal interest	=	2.50%	$2,500
Effective interest	=	2.25%	2,250
Excess interest	=		$ 250

The excess interest constitutes an annuity for the life of the bond. The present value of this annuity represents the premium to be paid.

$$A_0 = R\,a_{\overline{n}|i}$$
$$= 250 \times a_{\overline{6}|.0225}$$
$$= 250 \times 5.5544768 = \$\ 1{,}388.62$$

Par value	100,000.00
Basis price	$101,388.62

AMORTIZATION SCHEDULE.—Although an investor may have paid a premium for the bond, generally speaking, he collects only the par value at maturity. This shrinkage in value takes place gradually during the life of the bond. It means that each coupon collection represents two things:

1. Return on the investment at the nominal rate.
2. Partial return of the premium paid.

That this is the case can be shown by a so-called amortization table. The table in Fig. 21 is based on the premium bond illustrated in the last example.

Date	Coupon Income 2½%	Effective Income 2¼%	Amortization	Remaining Book Value
November 1, 1945.	.....	.....	.....	$101,388.62
May 1, 1946.....	$ 2,500	$2,281.25	$218.75	101,169.87
November 1, 1946.	2,500	2,276.32	223.68	100,946.19
May 1, 1947.....	2,500	2,271.29	228.71	100,717.48
November 1, 1947.	2,500	2,266.14	233.86	100,483.62
May 1, 1948.....	2,500	2,260.88	239.12	100,244.50
November 1, 1948.	2,500	2,255.50	244.50	100,000.00
	$15,000	$13,611.38	$1,388.62	

FIG. 21. Schedule of Amortization

The coupon income is 2½% a period based on the par value of the bonds. The effective income on yield is 2¼% based on the remaining investment. Thus, on May 1, 1946, 2¼% is earned on $101,388.62, or $2,281.25. This is the true income for the period. The balance of the $2,500 coupon interest collected on that day represents a partial liquidation of the investment. Hence, the book value is reduced on May 1, 1946 by $218.75. Six months later, the effective income is 2¼% of the new book value of $101,169.87, etc.

SHORT-CUT METHOD FOR DISCOUNT BONDS.—The short-cut method illustrated above works equally well for bonds selling at a discount, as shown in the example below.

Example. Find the basis price of a $10,000 bond paying 3% February and August 1, to yield 3½%. The bond was purchased February 1, 1946 and matures August 1, 1949.

	Rate	Amount
Nominal interest	1.50%	$150
Effective interest	1.75%	175
Deficiency of interest		$ 25

$$A_0 = 25 \times a_{\overline{7}|.0175}$$
$$= 25 \times 6.5346414 \quad \text{(Fig. 18a)}$$
$$= \$ \ 163.37$$

Par value	10,000.00
Basis price	$ 9,836.63

SCHEDULE OF ACCUMULATION.—A bond purchased at a discount approaches par or other redemption value gradually. The increase in value is spread over the life of the bond. Hence, the **true income** each period consists of:

1. Coupon interest.
2. Increase in book value known as the accumulation.

The table in Fig. 22 shows an accumulation table for the last illustration, under the short-cut method for discount bonds.

Date	Coupon Interest 1½%	Effective Interest 1¾%	Accumulation	New Book Value
February 1, 1946....	....	.....	.....	$9,836.63
August 1, 1946.....	$150	$172.14	$22.14	9,858.77
February 1, 1947....	150	172.53	22.53	9,881.30
August 1, 1947.....	150	172.92	22.92	9,904.22
February 1, 1948....	150	173.33	23.33	9,927.55
August 1, 1948.....	150	173.73	23.73	9,951.28
February 1, 1949....	150	174.15	24.15	9,975.43
August 1, 1949.....	150	174.57	24.57	10,000.00
	$1,050	$1,213.37	$163.37	

FIG. 22. Accumulation Table for $10,000 Bond

The figures in the effective interest column are obtained by taking 1¾% of the last book value. Thus on August 1, 1946, 1¾% of $9,836.63 yields $172.14, etc. Six months later 1¾% of $9,858.77 amounts to $172.53, etc. In each case, the difference between coupon and yield interest is **added** to the previous book value.

Value, to the nearest Cent, of a Bond for $1,000,000 at 3½% Interest, payable semiannually

Net Inc.	8 Years	8½ Years	9 Years	9½ Years	10 Years
2 50	1 072 101 46	1 076 149 59	1 080 147 74	1 084 096 54	1 087 996 58
2 55	1 068 357 29	1 072 186 91	1 075 968 32	1 079 702 11	1 083 388 91
2 60	1 064 628 15	1 068 241 02	1 071 807 52	1 075 328 26	1 078 803 81
2 65	1 060 913 97	1 064 311 84	1 067 665 27	1 070 974 86	1 074 241 16
2 70	1 057 214 68	1 060 399 29	1 063 541 48	1 066 641 82	1 069 700 86
2 75	1 053 530 23	1 056 503 31	1 059 436 06	1 062 329 04	1 065 182 77
2 80	1 049 860 54	1 052 623 80	1 055 348 92	1 058 036 41	1 060 686 79
2 85	1 046 205 55	1 048 760 71	1 051 279 97	1 053 763 83	1 056 212 80
2 90	1 042 565 20	1 044 913 95	1 047 229 12	1 049 511 21	1 051 760 68
2 95	1 038 939 42	1 041 083 44	1 043 196 30	1 045 278 44	1 047 330 32
3 00	1 035 328 16	1 037 269 12	1 039 181 40	1 041 065 42	1 042 921 60
3 05	1 031 731 35	1 033 470 91	1 035 184 35	1 036 872 05	1 038 534 40
3 10	1 028 148 92	1 029 688 74	1 031 205 06	1 032 698 24	1 034 168 63
3 15	1 024 580 81	1 025 922 53	1 027 243 45	1 028 543 88	1 029 824 15
3 20	1 021 026 97	1 022 172 22	1 023 299 43	1 024 408 88	1 025 500 87
3 25	1 017 487 33	1 018 437 72	1 019 372 91	1 020 293 15	1 021 198 67
3 30	1 013 961 83	1 014 718 97	1 015 463 81	1 016 196 57	1 016 917 43
3 35	1 010 450 41	1 011 015 89	1 011 572 06	1 012 119 06	1 012 657 06
3 40	1 006 953 00	1 007 328 42	1 007 697 56	1 008 060 53	1 008 417 43
3 45	1 003 469 55	1 003 656 48	1 003 840 23	1 004 020 87	1 004 198 45
3 50	1 000 000 00	1 000 000 00	1 000 000 00	1 000 000 00	1 000 000 00
3 55	996 544 28	996 358 91	996 176 78	995 997 81	995 821 97
3 60	993 102 35	992 733 15	992 370 48	992 014 22	991 664 27
3 65	989 674 12	989 122 64	988 581 03	988 049 13	987 526 77
3 70	986 259 56	985 527 31	984 808 35	984 102 46	983 409 38
3 75	982 858 60	981 947 09	981 052 36	980 174 09	979 311 99
3 80	979 471 17	978 381 92	977 312 97	976 263 96	975 234 50
3 85	976 097 23	974 831 72	973 590 11	972 371 95	971 176 80
3 90	972 736 72	971 296 44	969 883 70	968 497 99	967 138 79
3 95	969 389 57	967 775 99	966 193 67	964 641 99	963 120 36
4 00	966 055 73	964 270 32	962 519 92	960 803 84	959 121 42
4 05	962 735 14	960 779 36	958 862 39	956 983 48	955 141 85
4 10	959 427 74	957 303 03	955 221 00	953 180 79	951 181 57
4 15	956 133 49	953 841 28	951 595 67	949 395 71	947 240 47
4 20	952 852 31	950 394 04	947 986 33	945 628 13	943 318 45
4 25	949 584 16	946 961 24	944 392 89	941 877 98	939 415 40
4 30	946 328 98	943 542 81	940 815 28	938 145 16	935 531 24
4 35	943 086 72	940 138 70	937 253 44	934 429 59	931 665 86
4 40	939 857 31	936 748 83	933 707 27	930 731 19	927 819 17
4 45	936 640 70	933 373 15	930 176 72	927 049 86	923 991 06
4 50	933 436 84	930 011 58	926 661 69	923 385 52	920 181 44
4 55	930 245 68	926 664 07	923 162 13	919 738 09	916 390 21
4 60	927 067 15	923 330 55	919 677 96	916 107 48	912 617 29
4 65	923 901 21	920 010 96	916 209 09	912 493 62	908 862 56
4 70	920 747 80	916 705 23	912 755 47	908 896 41	905 125 95
4 75	917 606 86	913 413 30	909 317 02	905 315 77	901 407 35
4 80	914 478 35	910 135 11	905 893 66	901 751 62	897 706 66
4 85	911 362 21	906 870 60	902 485 33	898 203 89	894 023 81
4 90	908 258 39	903 619 71	899 091 95	894 672 48	890 358 69
4 95	905 166 83	900 382 36	895 713 46	891 157 31	886 711 21
5 00	902 087 48	897 158 52	892 349 77	887 658 31	883 081 28

FIG. 23. Bond Table Page

Values, to the nearest Cent, of a Bond for $1,000,000 at 4% Interest, payable semiannually

Net Inc.	5½ Years	6 Years	6½ Years	7 Years	7½ Years
2 50	1 076 633 53	1 083 094 84	1 089 476 38	1 095 779 15	1 102 004 09
2 55	1 073 971 71	1 080 199 17	1 086 348 23	1 092 419 88	1 098 415 09
2 60	1 071 317 52	1 077 312 46	1 083 230 47	1 089 072 52	1 094 839 61
2 65	1 068 670 93	1 074 434 67	1 080 123 04	1 085 737 03	1 091 277 60
2 70	1 066 031 92	1 071 565 78	1 077 025 93	1 082 413 35	1 087 729 01
2 75	1 063 400 46	1 068 705 75	1 073 939 09	1 079 101 45	1 084 193 78
2 80	1 060 776 52	1 065 854 56	1 070 862 48	1 075 801 27	1 080 671 86
2 85	1 058 160 09	1 063 012 17	1 067 796 07	1 072 512 77	1 077 163 19
2 90	1 055 551 14	1 060 178 55	1 064 739 83	1 069 235 90	1 073 667 72
2 95	1 052 949 65	1 057 353 68	1 061 693 70	1 065 970 63	1 070 185 40
3 00	1 050 355 59	1 054 537 53	1 058 657 66	1 062 716 91	1 066 716 17
3 05	1 047 768 94	1 051 730 06	1 055 631 67	1 059 474 68	1 063 259 97
3 10	1 045 189 68	1 048 931 24	1 052 615 70	1 056 243 92	1 059 816 76
3 15	1 042 617 78	1 046 141 06	1 049 609 70	1 053 024 57	1 056 386 48
3 20	1 040 053 22	1 043 359 47	1 046 613 65	1 049 816 58	1 052 969 08
3 25	1 037 495 98	1 040 586 45	1 043 627 50	1 046 619 93	1 049 564 50
3 30	1 034 946 03	1 037 821 97	1 040 651 22	1 043 434 55	1 046 172 70
3 35	1 032 403 35	1 035 066 00	1 037 684 78	1 040 260 42	1 042 793 62
3 40	1 029 867 93	1 032 318 51	1 034 728 13	1 037 097 48	1 039 427 22
3 45	1 027 339 73	1 029 579 48	1 031 781 25	1 033 945 69	1 036 073 42
3 50	1 024 818 73	1 026 848 87	1 028 844 10	1 030 805 01	1 032 732 20
3 55	1 022 304 91	1 024 126 66	1 025 916 64	1 027 675 41	1 029 403 49
3 60	1 019 798 25	1 021 412 82	1 022 998 84	1 024 556 82	1 026 087 25
3 65	1 017 298 73	1 018 707 32	1 020 090 67	1 021 449 22	1 022 783 42
3 70	1 014 806 32	1 016 010 13	1 017 192 08	1 018 352 56	1 019 491 96
3 75	1 012 321 00	1 013 321 23	1 014 303 05	1 015 266 79	1 016 212 80
3 80	1 009 842 75	1 010 640 58	1 011 423 53	1 012 191 89	1 012 945 92
3 85	1 007 371 55	1 007 968 16	1 008 553 51	1 009 127 80	1 009 691 24
3 90	1 004 907 37	1 005 303 94	1 005 692 93	1 006 074 48	1 006 448 73
3 95	1 002 450 20	1 002 647 90	1 002 841 77	1 003 031 89	1 003 218 33
4 00	1 000 000 00	1 000 000 00	1 000 000 00	1 000 000 00	1 000 000 00
4 05	997 556 76	997 360 22	997 167 58	996 978 76	996 793 68
4 10	995 120 46	994 728 53	994 344 47	993 968 12	993 599 34
4 15	992 691 08	992 104 90	991 530 64	990 968 06	990 416 91
4 20	990 268 59	989 489 32	988 726 07	987 978 52	987 246 35
4 25	987 852 97	986 881 74	985 930 71	984 999 47	984 087 61
4 30	985 444 21	984 282 14	983 144 53	982 030 87	980 940 65
4 35	983 042 27	981 690 50	980 367 51	979 072 68	977 805 41
4 40	980 647 14	979 106 79	977 599 60	976 124 85	974 681 85
4 45	978 258 80	976 530 98	974 840 78	973 187 36	971 569 93
4 50	975 877 22	973 963 05	972 091 01	970 260 15	968 469 59
4 55	973 502 39	971 402 97	969 350 25	967 343 20	965 380 78
4 60	971 134 28	968 850 71	966 618 49	964 436 45	962 303 47
4 65	968 772 87	966 306 25	963 895 68	961 539 88	959 237 60
4 70	966 418 15	963 769 57	961 181 79	958 653 44	956 183 13
4 75	964 070 09	961 240 62	958 476 80	955 777 09	953 140 02
4 80	961 728 66	958 719 40	955 780 66	952 910 80	950 108 21
4 85	959 393 86	956 205 87	953 093 35	950 054 53	947 087 65
4 90	957 065 65	953 700 00	950 414 84	947 208 24	944 078 32
4 95	954 744 03	951 201 78	947 745 09	944 371 89	941 080 15
5 00	952 428 96	948 711 18	945 084 08	941 545 44	938 093 11

FIG. 24. Bond Table Page

Values, to the nearest Cent, of a Bond for $1,000,000 at 4½% Interest, payable semiannually

Net Inc.	18 Years	18½ Years	19 Years	19½ Years	20 Years
2 50	1 288 472 67	1 294 787 83	1 301 025 01	1 307 185 20	1 313 269 33
2 55	1 280 072 46	1 286 173 74	1 292 198 21	1 298 146 84	1 304 020 58
2 60	1 271 740 13	1 277 630 93	1 283 446 13	1 289 186 70	1 294 853 60
2 65	1 263 475 09	1 269 158 74	1 274 768 06	1 280 304 03	1 285 767 61
2 70	1 255 276 76	1 260 756 55	1 266 163 34	1 271 498 12	1 276 761 83
2 75	1 247 144 54	1 252 423 72	1 257 631 29	1 262 768 23	1 267 835 49
2 80	1 239 077 87	1 244 159 63	1 249 171 23	1 254 113 64	1 258 987 81
2 85	1 231 076 15	1 235 963 67	1 240 782 52	1 245 533 66	1 250 218 06
2 90	1 223 138 83	1 227 835 22	1 232 464 49	1 237 027 59	1 241 525 47
2 95	1 215 265 35	1 219 773 68	1 224 216 49	1 228 594 72	1 232 909 31
3 00	1 207 455 13	1 211 778 46	1 216 037 89	1 220 234 37	1 224 368 84
3 05	1 199 707 64	1 203 848 94	1 207 928 04	1 211 945 86	1 215 903 34
3 10	1 192 022 31	1 195 984 55	1 199 886 32	1 203 728 52	1 207 512 09
3 15	1 184 398 62	1 188 184 71	1 191 912 10	1 195 581 68	1 199 194 37
3 20	1 176 836 02	1 180 448 83	1 184 004 76	1 187 504 68	1 190 949 49
3 25	1 169 333 97	1 172 776 35	1 176 163 69	1 179 496 87	1 182 776 75
3 30	1 161 891 95	1 165 166 70	1 168 388 29	1 171 557 59	1 174 675 45
3 35	1 154 509 44	1 157 619 31	1 160 677 96	1 163 686 21	1 166 644 91
3 40	1 147 185 91	1 150 133 64	1 153 032 09	1 155 882 10	1 158 684 46
3 45	1 139 920 85	1 142 709 12	1 145 450 11	1 148 144 61	1 150 793 43
3 50	1 132 713 76	1 135 345 22	1 137 931 42	1 140 473 14	1 142 971 15
3 55	1 125 564 13	1 128 041 40	1 130 475 46	1 132 867 07	1 135 216 97
3 60	1 118 471 46	1 120 797 11	1 123 081 64	1 125 325 78	1 127 530 23
3 65	1 111 435 25	1 113 611 83	1 115 749 41	1 117 848 67	1 119 910 31
3 70	1 104 455 01	1 106 485 04	1 108 478 19	1 110 435 14	1 112 356 55
3 75	1 097 530 27	1 099 416 21	1 101 267 45	1 103 084 61	1 104 868 33
3 80	1 090 660 52	1 092 404 83	1 094 116 61	1 095 796 48	1 097 445 02
3 85	1 083 845 30	1 085 450 38	1 087 025 15	1 088 570 17	1 090 086 02
3 90	1 077 084 14	1 078 552 37	1 079 992 51	1 081 405 12	1 082 790 70
3 95	1 070 376 56	1 071 710 28	1 073 018 18	1 074 300 74	1 075 558 46
4 00	1 063 722 11	1 064 923 63	1 066 101 60	1 067 256 47	1 068 388 70
4 05	1 057 120 31	1 058 191 92	1 059 242 27	1 060 271 76	1 061 280 83
4 10	1 050 570 72	1 051 514 67	1 052 439 66	1 053 346 06	1 054 234 26
4 15	1 044 072 88	1 044 891 39	1 045 693 25	1 046 478 82	1 047 248 41
4 20	1 037 626 35	1 038 321 60	1 039 002 54	1 039 669 48	1 040 322 71
4 25	1 031 230 68	1 031 804 83	1 032 367 03	1 032 917 53	1 033 456 58
4 30	1 024 885 43	1 025 340 61	1 025 786 20	1 026 222 42	1 026 649 46
4 35	1 018 590 17	1 018 928 47	1 019 259 58	1 019 583 63	1 019 900 79
4 40	1 012 344 46	1 012 567 96	1 012 786 66	1 013 000 64	1 013 210 02
4 45	1 006 147 88	1 006 258 62	1 006 366 96	1 006 472 94	1 006 576 61
4 50	1 000 000 00	1 000 000 00	1 000 000 00	1 000 000 00	1 000 000 00
4 55	993 900 41	993 791 65	993 685 30	993 581 33	993 479 67
4 60	987 848 68	987 633 12	987 422 40	987 216 42	987 015 08
4 65	981 844 41	981 523 97	981 210 82	980 904 79	980 605 70
4 70	975 887 18	975 463 78	975 050 10	974 645 92	974 251 02
4 75	969 976 59	969 452 11	968 939 79	968 439 35	967 950 53
4 80	964 112 25	963 488 52	962 879 42	962 284 59	961 703 70
4 85	958 293 75	957 572 61	956 868 55	956 181 16	955 510 04
4 90	952 520 69	951 703 95	950 906 73	950 128 58	949 369 04
4 95	946 792 70	945 882 11	944 993 52	944 126 40	943 280 21
5 00	941 109 37	940 106 70	939 128 49	938 174 14	937 243 06

FIG. 25. Bond Table Page

Values, to the nearest Cent, of a Bond for $1,000,000 at 5% Interest, payable semi-annually

Net Inc.	20½ Years	21 Years	21½ Years	22 Years	22½ Years
2 50	1 399 097 94	1 406 516 48	1 413 843 44	1 421 079 94	1 428 227 10
2 55	1 389 261 49	1 396 456 67	1 403 561 26	1 410 576 41	1 417 503 25
2 60	1 379 512 99	1 386 488 64	1 393 374 76	1 400 172 52	1 406 883 04
2 65	1 369 851 57	1 376 611 47	1 383 282 97	1 389 867 23	1 396 365 39
2 70	1 360 276 39	1 366 824 26	1 373 284 91	1 379 659 51	1 385 949 20
2 75	1 350 786 60	1 357 126 11	1 363 379 64	1 369 548 35	1 375 633 39
2 80	1 341 381 36	1 347 516 14	1 353 566 21	1 359 532 75	1 365 416 91
2 85	1 332 059 86	1 337 993 45	1 343 843 68	1 349 611 71	1 355 298 71
2 90	1 322 821 27	1 328 557 19	1 334 211 13	1 339 784 26	1 345 277 73
2 95	1 313 664 79	1 319 206 49	1 324 667 64	1 330 049 41	1 335 352 96
3 00	1 304 589 61	1 309 940 50	1 315 212 32	1 320 406 22	1 325 523 37
3 05	1 295 594 94	1 300 758 38	1 305 844 25	1 310 853 73	1 315 787 97
3 10	1 286 680 01	1 291 659 29	1 296 562 57	1 301 391 01	1 306 145 75
3 15	1 277 844 02	1 282 642 40	1 287 366 38	1 292 017 11	1 296 595 73
3 20	1 269 086 22	1 273 706 91	1 278 254 84	1 282 731 14	1 287 136 95
3 25	1 260 405 85	1 264 852 00	1 269 227 06	1 273 532 17	1 277 768 43
3 30	1 251 802 15	1 256 076 88	1 260 282 22	1 264 419 30	1 268 489 23
3 35	1 243 274 37	1 247 380 75	1 251 419 47	1 255 391 66	1 259 298 41
3 40	1 234 821 79	1 238 762 82	1 242 637 98	1 246 448 35	1 250 195 04
3 45	1 226 443 67	1 230 222 33	1 233 936 92	1 237 588 52	1 241 178 19
3 50	1 218 139 28	1 221 758 51	1 225 315 49	1 228 811 29	1 232 246 97
3 55	1 209 907 93	1 213 370 60	1 216 772 88	1 220 115 82	1 223 400 46
3 60	1 201 748 88	1 205 057 84	1 208 308 29	1 211 501 27	1 214 637 79
3 65	1 193 661 46	1 196 819 50	1 199 920 95	1 202 966 80	1 205 958 07
3 70	1 185 644 96	1 188 654 84	1 191 610 06	1 194 511 59	1 197 360 43
3 75	1 177 698 70	1 180 563 14	1 183 374 86	1 186 134 83	1 188 844 01
3 80	1 169 822 00	1 172 543 67	1 175 214 59	1 177 835 71	1 180 407 96
3 85	1 162 014 18	1 164 595 71	1 167 128 49	1 169 613 43	1 172 051 44
3 90	1 154 274 59	1 156 718 58	1 159 115 82	1 161 467 21	1 163 773 62
3 95	1 146 602 56	1 148 911 56	1 151 175 84	1 153 396 26	1 155 573 68
4 00	1 138 997 45	1 141 173 97	1 143 307 81	1 145 399 82	1 147 450 80
4 05	1 131 458 60	1 133 505 12	1 135 511 02	1 137 477 11	1 139 404 18
4 10	1 123 985 38	1 125 904 34	1 127 784 76	1 129 627 40	1 131 433 02
4 15	1 116 577 16	1 118 370 97	1 120 128 30	1 121 849 92	1 123 536 54
4 20	1 109 233 32	1 110 904 33	1 112 540 97	1 114 143 94	1 115 713 95
4 25	1 101 953 22	1 103 503 77	1 105 022 05	1 106 508 74	1 107 964 49
4 30	1 094 736 27	1 096 168 65	1 097 570 87	1 098 943 59	1 100 287 41
4 35	1 087 581 85	1 088 898 31	1 090 186 75	1 091 447 76	1 092 681 93
4 40	1 080 489 37	1 081 692 14	1 082 869 02	1 084 020 57	1 085 147 33
4 45	1 073 458 22	1 074 549 50	1 075 617 02	1 076 661 30	1 077 682 86
4 50	1 066 487 83	1 067 469 76	1 068 430 08	1 069 369 27	1 070 287 80
4 55	1 059 577 60	1 060 452 31	1 061 307 57	1 062 143 80	1 062 961 42
4 60	1 052 726 97	1 053 496 55	1 054 248 83	1 054 984 19	1 055 703 02
4 65	1 045 935 36	1 046 601 87	1 047 253 23	1 047 889 79	1 048 511 89
4 70	1 039 202 21	1 039 767 67	1 040 320 15	1 040 859 94	1 041 387 34
4 75	1 032 526 96	1 032 993 37	1 033 448 95	1 033 893 97	1 034 328 67
4 80	1 025 909 05	1 026 278 37	1 026 639 03	1 026 991 24	1 027 335 20
4 85	1 019 347 94	1 019 622 10	1 019 889 78	1 020 151 11	1 020 406 26
4 90	1 012 843 08	1 013 024 00	1 013 200 58	1 013 372 95	1 013 541 19
4 95	1 006 393 95	1 006 483 48	1 006 570 85	1 006 656 11	1 006 739 32
5 00	1 000 000 00	1 000 000 00	1 000 000 00	1 000 000 00	1 000 000 00

FIG. 26. Bond Table Page

BOND VALUATION TABLES.—Bond tables have been devised to simplify the labor involved in determining:

1. The price to be paid when the yield is known.
2. The yield when the cost is known.

Thus it is possible to read the basis price of a bond directly from the table. The standard bond tables usually give the value of a million dollar bond correct to the nearest cent for a great variety of nominal and effective interest rates and for periods ranging from 6 months to 50 years at 6-month intervals, and at longer intervals thereafter. Sprague's Extended Bond Tables cover coupon rates from 3% to 7% and yields from 2½% to 5%. Special formulas and tables are provided for other rates and for bonds with quarterly or annual coupons. Figs. 23, 24, 25, and 26 represent a random selection of pages from Sprague's Extended Bond Tables. The following problems illustrate the uses of these tables.

Finding Price of a Bond When the Yield Is Known.—

Example 1. What price shall be paid for a $1,000 bond, due 18 years hence, bearing interest at 4½% per annum, payable semiannually, to yield 5% per annum on the investment?

In the 4½% table (Fig. 25) look down the column headed 18 years until the line of net income of 5% is reached. The price to be paid for the bond is $941.11.

Example 2. An advertisement contains in part the following information, "These 3½% bonds maturing in 9 years will yield the purchaser 4.23% per annum on his investment." What price shall be paid for the bonds? This is similar to the problem above except that the yield rate is not found in the table but will have to be obtained by interpolation.

Proceed as follows: In the 3½% table (Fig. 23) in the column headed 9 years, set down the price of a $1,000 bond at 4.20 and 4.25%.

Yield	Price
4.20%	$947.99
4.25%	944.39
.05%	$ 3.60

Thus an increase of .05% in yield corresponds to a decrease of $3.60 in the basis price of the bond. The difference between 4.20% and the given yield of 4.23% amounts to .03%. Hence the change in basis price is

$$\frac{.03}{.05} \times \$3.60 = \frac{3}{5} \times 3.60 = \$2.16$$

Since the basis price decreases as the yield increases, the price to be paid in this case is $947.99 − $2.16 = $945.83

Finding Yield When Basis Price Is Known.—A frequent problem is that of determining the yield when the basis price, i.e., the quoted price, is known. The problem is not easily solved by ordinary mathematical devices, but the yield can easily be approximated by the use of bond tables.

Example. What yield is realized on a 4½% bond maturing in 19½ years and quoted at 118¾?

At 118¾ the price is $1,187.50 for a $1,000 bond. Turn to the 4½% table (Fig. 25) in the column headed 19½ years. Follow down the column until the value of $1,187.50 is reached. It is found to correspond to a yield of 3.20% as shown in the left-hand column.

When the value does not appear in the table, it is necessary to find the next higher and next lower value in the table and interpolate.

Example 4. What is the yield on a 4% $1,000 bond maturing in 7 years and quoted at 97½?

The basis price is $975. Turn to the 4% table (Fig. 24) and follow down the column headed 7 years. It will be seen that 975 does not appear in that column. It lies between two figures which represent a net income rate of 4.40% and 4.45%.

Yield	Tabular Diff.	Given Diff.
4.40%	976.12	976.12
?		975.00
4.45%	973.19	
.05%	2.93	1.12

$$\text{Yield rate} = 4.40\% + \left(\frac{1.12}{2.93} \times .05\%\right)$$
$$= 4.40\% + .019\%$$
$$= 4.419\%$$

The tabular difference, that is, the difference between the next lower and next higher values, is $2.93, which corresponds to an increase of .05% in the yield. The given difference, that is, the difference between the given basis price of $975 and the next higher value in the table is $1.12. Hence the yield is increased by a fraction of .05% represented by the given difference over the tabular difference. In more technical language the increase in the yield rate is proportional to the difference:

$$x : .05 :: 1.12 : 2.93$$

Expressed fractionally,

$$\frac{x}{.05\%} = \frac{1.12}{2.93}$$

$$x = \frac{1.12}{2.93} \times .05\% = .019\%$$

When added to 4.40% this yields the answer shown above.

BASIS PRICE FOR BONDS BOUGHT BETWEEN INTEREST DATES.—The basis price of a bond changes from day to day. Hence, if a bond is bought between interest dates, its basis price must be computed by interpolation between the basis prices of the last preceding and next succeeding interest dates. In addition, the purchaser will have to pay **accrued interest** on the bonds to the seller for the time since the last interest date.

Bonds may be quoted either "and interest" or "flat." The **"and-interest" price** is the quoted price plus the accrued interest. The **"flat" price** includes the accrued interest in the quotation. To find the value of a bond between interest dates, proceed as follows:

1. Find the basis price on the preceding interest day and on the succeeding interest day, and thus determine the decrease or increase in book value for the entire period.

2. Find the fractional part of the period which has elapsed to the day of purchase. Find this fractional part of the period's change in book value.
3. Add to the book value of the preceding interest day the increase found in (2) or subtract from it the decrease found in (2) for the part of the period which has elapsed. The result is the "and-interest" price or "ex-interest" price.
4. Add to the ex-interest price in either case the accrued interest, or seller's share of the current period's bond interest. The result is the **total price** or flat price.

Example 1. Find the "and-interest" and "flat" prices of a $1,000 bond, due February 1, 1966, bearing interest at 4½% per annum, payable February 1 and August 1, if purchased April 1, 1946, to yield 3.4%.

The life of the bond on the last interest date (February 1, 1946) was for 20 years; at the next interest date it has 19½ years to run. The basis prices on these two dates can be found by the methods presented earlier (determining the basis price of bonds) or by reference to the bond tables (Fig. 25). From the latter the values of the bond to yield 3.4% are as follows:

1. 20 years (Feb. 1, 1946)	$1,158.68
19½ years (Aug. 1, 1946)	1,155.88
Amortization for 6 months	$ 2.80
2. From February 1 to April 1 is ⅓ of a period. Therefore the basic price decreased ⅓ × $2.80 =	$ .93
3. "And interest" price April 1, 1946 = $1,158.68 − $.93 =	$1,157.75
4. Accrued interest: 4½% per annum on $1,000 for 2 months	7.50
Flat price	$1,165.25

It is possible also to determine the flat price directly. The seller is entitled to the book value on the preceding interest day, plus interest on this value at the yield rate, for the time elapsed since that day. The procedure is stated by Schlauch and Lang (Mathematics of Business and Finance) as follows:

1. Find the basis price on the preceding interest day.
2. Find the time elapsed since the last interest day, and add to the basis price on the preceding interest day interest on it at the yield rate for the elapsed time on a 360-day year basis. The result is the **total price.**
3. From the total price **subtract** the accrued interest. The result is the and-interest price or the ex-interest price.

Using the same illustration as above the method works out as follows:

1. February 1, 1946 Basis Price	$1,158.68
2. Interest at 3.4% per annum for 2 months on above	6.57
3. April 1, 1946 Flat Price	$1,165.25

If only the total price to be paid by the purchaser or to be received by the seller is wanted, this method offers a short-cut. For the purpose

of setting up a schedule of amortization or accumulation, the and-interest price must be used. The first four lines of the amortization table for the above bond appear as follows:

Date	4½% Bond Interest	3.4% Effective Interest	Amortization	Book Value
April 1, 1946.....	.....	.....	....	$1,157.75
August 1, 1946.....	$15.00	$13.13	$1.87	1,155.88
February 1, 1947....	22.50	19.65	2.85	1,153.03
August 1, 1947.....	22.50	19.60	2.90	1,150.13

The figures for August 1, 1946 are obtained as follows:

1. Bond interest. The total coupon interest for a period is $22.50, one-third of which ($7.50) was paid over to the vendor on April 1. Hence, the net interest collected on August 1 is $15.
2. Effective interest. This must be calculated on the basis price as of the last interest date (February 1, 1946) for four months. In this case $1,158.68 at 3.4% for 4 months = $13.13.
3. Amortization. Difference between the two preceding columns. $15 − $13.13 = $1.87. It could also be found by taking the amortization for the full 6-month period (2.80) and subtracting the amortization from February 1 to April 1 (($.93.)
4. Book value. Book value April 1, 1946 less current amortization. $1,157.75 − $1.87 = $1,155.88.

ACCRUING BOND INTEREST BETWEEN INTEREST DATES.—The interest accrued at time of purchase or sale depends on whether the bond is a corporate or a government bond. For **corporate** bonds delivery must be made on the second working day after the sale and interest is accrued on the basis of a 360-day year up to and including the day before delivery. In the case of **government bonds,** delivery is on the next working day, and the seller receives interest up to and including the day of the sale.

The rules are further clarified by the Committee on Securities of the New York Stock Exchange as follows:

Interest at the rate specified on a bond dealt in "and-interest" shall be computed on a basis of a 360-day year, i.e., each calendar month shall be considered to be 1/12 of 360 days, and each period from a date in one month to the same date in the following month shall be considered to be 30 days.

Note: The number of elapsed days shall be computed in accordance with the examples given in the following table:

From	To
30th or 31st	1st of the following month to be figured as 1 day.
30th or 31st	30th of the following month to be figured as 30 days.
30th or 31st	31st of the following month to be figured as 30 days.
30th or 31st	1st of the second following month to be figured as one month, one day.

Thus if a January and July bond were bought on March 15, 2 months are said to have elapsed since January 15. If a June and December 1 bond were bought on January 16, following the above rule there are:

From December 1 to January 1	30 days
From January 1 to January 16	15 days
Elapsed time	45 days

DETERMINING PROFIT OR LOSS ON SALE OF BONDS.—When bonds which have been purchased as an investment are subsequently sold, the profit or loss on the transaction is determined by comparison of the book value (i.e., the and-interest price) on the date of sale with the selling price. The example below illustrates the procedure.

Example. On January 1, 1943 Mr. A bought a $1,000 bond bearing 4%, January and July 1, due July 1, 1949 at a price to yield 3½% if kept to maturity. On March 1, 1943 he sold the bond for $1,070.90 and interest. Find the profit realized on the sale.

March 1 falls between interest dates. Hence, find the basis prices on January 1, 1943 and July 1, 1943 and interpolate.

January 1, 1943, basis price (Fig. 24)	$1,028.84
July 1, 1943, basis price (Fig. 24)	1,026.85
Difference for 6-month period	$ 1.99
January 1-March 1 (2 months or ⅓ of $1.99)	$ .66
March 1, 1943 basis price ($1,028.84 − $.66)	$1,028.18
Selling price	1,070.90
Profit on sale	$ 42.72

The profit figure represents the capital gain for tax purposes and is of course exclusive of the coupon interest less amortization regularly reported as income.

FINDING YIELD BETWEEN INTEREST DATES.—In this type of problem a double interpolation is required. First it is necessary to find basis prices above and below the quoted price on the date of purchase or sale. Next an interpolation is made for the yield.

Example 1. Find the yield on a $1,000 3½% bond, January and July 1, due July 1, 1955, if purchased March 1, 1946 at 104¼ and interest.

On March 1, 1946 the bond had 9 years and 4 months to run. The first step is to read from Fig. 23 the values for 9½ years and 9 years which bracket the given price of $1,042.50 and to write down the yields corresponding to them, as in columns (2) and (4) below:

(1) Yield	(2) 9½ Years	(3) 9 Years, 4 Months	(4) 9 years	(5) (2)−(4) Difference
2.95%	$1,045.28	$1,044.59	$1,043.20	$2.08
3.00%	1,041.07	1,040.44	1,039.18	1.89

The differences in the last column represent the change in book value for a 6-month period. A change in the time interval of 2 months (i.e., from 9½ years to 9 years and 4 months) would change the book value by one-third of the difference.

Book value, January 1, 1946	$1,045.28
⅓ of $2.08	.69
Book value, March 1, 1946	$1,044.59

In the same way the book value corresponding to a 3% yield is determined to be $1,040.44. These interpolated values are inserted in column (3) above. There is thus one value above the given quotation corresponding to a yield of 2.95% and one below, corresponding to a yield of 3%. To find the yield at the quoted price, interpolate in column (3) as follows:

2.95%	$1,044.59	$1,044.59
?		1,042.50
3.00%	1,040.44	
.05%	$ 4.15	$ 2.09

$$\frac{209}{415} \times .05\% = .025\%$$

Hence the required yield is

$$2.95\% + .025\% = \underline{\underline{2.975\%}}$$

Example 2. Find the yield on a $1,000 bond, 4% interest February and August 15, due August 15, 1953, purchased March 15, 1947 at 94⅞ and accrued interest.

The interest date preceding the date of purchase was February 15, 1947 at which time the bond had 6½ years to run.

(1)	(2)	(3)	(4)	(5)
Yield	6½ Years	6 Years, 5 Months	6 Years	Difference
4.90%	$950.41	$950.96	$953.70	$3.29
4.95%	947.75	948.33	951.20	3.45
5.00%	945.08	945.69	948.71	3.63

For 6½ years the yield is between 4.90% and 4.95%. But for 6 years the yield is between 4.95% and 5%. Hence three sets of figures are copied from Fig. 24, and horizontal interpolation made for 6 years and 5 months. It then becomes evident from column (3) that the next higher and next lower prices occur on lines 1 and 2 of the above table. Line 3 is therefore discarded and interpolation for the yield made as follows:

4.90%	$950.96	$950.96
?		948.75
4.95%	948.33	
.05%	$ 2.63	$ 2.21

$$\frac{221}{263} \times .05 = .042\%$$

$$\text{Yield rate} = 4.90\% + .042\% = \underline{\underline{4.942\%}}$$

Logarithms

DEFINITION AND USES.—The use of logarithms reduces multiplication and division to simple addition and subtraction, respectively. The task of extracting roots and raising numbers to powers is also enormously simplified. The logarithm (or log) of a number is generally defined as the power to which 10 must be raised to produce that number. Thus the log of 100 is 2, because $10^2 = 100$; the log of 10,000 is 4, because $10^4 = 10{,}000$. As a background for further discussion the following tabulation will be useful:

10^{-4}	=	.0001	that	is,	the	log	of	.0001	=	−4
10^{-3}	=	.001	"	"	"	"	"	.001	=	−3
10^{-2}	=	.01	"	"	"	"	"	.01	=	−2
10^{-1}	=	.1	"	"	"	"	"	.1	=	−1
10^{0}	=	1.	"	"	"	"	"	1.	=	0
10^{1}	=	10.	"	"	"	"	"	10.	=	1
10^{2}	=	100.	"	"	"	"	"	100.	=	2
10^{3}	=	1,000.	"	"	"	"	"	1,000.	=	3
10^{4}	=	10,000.	"	"	"	"	"	10,000.	=	4

This table can of course be extended up or down indefinitely.

The next step is to consider the significance of fractional or decimal powers of 10 such as $10^{1.25}$ or $10^{3.451\ 172}$. It is obvious that the value of $10^{1.25}$ lies between 10^{1} and 10^{2} and therefore between 10 and 100. (It is 17.783.) Likewise $10^{3.451\ 172}$ lies between 10^{3} and 10^{4} and therefore between 1,000 and 10,000. (It is 2,826.) These relationships may be restated as follows: The log of 17.783 is 1.25; the log of 2,826 is 3.451 172.

From the foregoing it should be clear that the logs of all numbers other than the even powers of 10 will consist of a whole number and a decimal. The whole number part of each log can be determined by inspection. The decimal part of the log can be determined practicably only by reference to a log table.

The whole number part of a log is called the **characteristic**; the decimal part is referred to as the **mantissa.** In looking up the log of a number only the mantissa is given by the table.

CHARACTERISTICS OF LOGS.—For even powers of 10, the log does not have a fractional part, as is evident from the tabulation above. For numbers from 1 to 10, the characteristic is 0; from 10 to 100, the characteristic is 1; from 100 to 1,000 it is 2, etc. In short, from 1 up, the characteristic is always positive and is one less than the number of digits to the left of the decimal point.

For numbers between 0 and 1, that is, for pure decimals, the characteristic is always negative and one greater than the number of ciphers immediately following the decimal point.

Example 1. Numbers greater than 1:

769	—	characteristic	is 2
164.34	—	"	" 2
16.043	—	"	" 1
14,701.2	—	"	" 4

Example 2. Pure decimals:

.6	—	characteristic	is $\bar{1}$
.4302	—	"	" $\bar{1}$
.0714	—	"	" $\bar{2}$
.000615	—	"	" $\bar{4}$

LOG TABLES.—Log tables are published as appendices in many mathematics books, and as separate volumes. Commonly available tables are carried out to six or seven decimals and provide sufficient accuracy for ordinary purposes. Tables up to twenty or more decimals are used for certain purposes. The logs of certain especially important

No.		0	1	2	3	4	5	6	7	8	9
1000	000	0000	0434	0869	1303	1737	2171	2605	3039	3473	3907
01		4341	4775	5208	5642	6076	6510	6943	7377	7810	8244
02		8677	9111	9544	9977	0411	0844	1277	1710	2143	2576
03	001	3009	3442	3875	4308	4741	5174	5607	6039	6472	6905
04		7337	7770	8202	8635	9067	9499	9932	0364	0796	1228
05	002	1661	2093	2525	2957	3389	3821	4253	4685	5116	5548
06		5980	6411	6843	7275	7706	8138	8569	9001	9432	9863
07	003	0295	0726	1157	1588	2019	2451	2882	3313	3744	4174
08		4605	5036	5467	5898	6328	6759	7190	7620	8051	8481
09		8912	9342	9772	0203	0633	1063	1493	1924	2354	2784
10	004	3214	3644	4074	4504	4933	5363	5793	6223	6652	7082
1011		7512	7941	8371	8800	9229	9659	0088	0517	0947	1376
12	005	1805	2234	2663	3092	3521	3950	4379	4808	5237	5666
13		6094	6523	6952	7380	7809	8238	8666	9094	9523	9951
14	006	0380	0808	1236	1664	2092	2521	2949	3377	3805	4233
15		4660	5088	5516	5944	6372	6799	7227	7655	8082	8510
16		8937	9365	9792	0219	0647	1074	1501	1928	2355	2782
17	007	3210	3637	4064	4490	4917	5344	5771	6198	6624	7051
18		7478	7904	8331	8757	9184	9610	0037	0463	0889	1316
19	008	1742	2168	2594	3020	3446	3872	4298	4724	5150	5576
20		6002	6427	6853	7279	7704	8130	8556	8981	9407	9832
1021	009	0257	0683	1108	1533	1959	2384	2809	3234	3659	4084
22		4509	4934	5359	5784	6208	6633	7058	7483	7907	8332
23		8756	9181	9605	0030	0454	0878	1303	1727	2151	2575
24	010	3000	3424	3848	4272	4696	5120	5544	5967	6391	6815
25		7239	7662	8086	8510	8933	9357	9780	0204	0627	1050
26	011	1474	1897	2320	2743	3166	3590	4013	4436	4859	5282
27		5704	6127	6550	6973	7396	7818	8241	8664	9086	9509
28		9931	0354	0776	1198	1621	2043	2465	2887	3310	3732
29	012	4154	4576	4998	5420	5842	6264	6685	7107	7529	7951
30		8372	8794	9215	9637	0059	0480	0901	1323	1744	2165
1031	013	2587	3008	3429	3850	4271	4692	5113	5534	5955	6376
32		6797	7218	7639	8059	8480	8901	9321	9742	0162	0583
33	014	1003	1424	1844	2264	2685	3105	3525	3945	4365	4785
34		5205	5625	6045	6465	6885	7305	7725	8144	8564	8984
35		9403	9823	0243	0662	1082	1501	1920	2340	2759	3178
36	015	3598	4017	4436	4855	5274	5693	6112	6531	6950	7369
37		7788	8206	8625	9044	9462	9881	0300	0718	1137	1555
38	016	1974	2392	2810	3229	3647	4065	4483	4901	5319	5737
39		6155	6573	6991	7409	7827	8245	8663	9080	9498	9916
40	017	0333	0751	1168	1586	2003	2421	2838	3256	3673	4090
1041		4507	4924	5342	5759	6176	6593	7010	7427	7844	8260
42		8677	9094	9511	9927	0344	0761	1177	1594	2010	2427
43	018	2843	3259	3676	4092	4508	4925	5341	5757	6173	6589
44		7005	7421	7837	8253	8669	9084	9500	9916	0332	0747
45	019	1163	1578	1994	2410	2825	3240	3656	4071	4486	4902
46		5317	5732	6147	6562	6977	7392	7807	8222	8637	9052
47		9467	9882	0296	0711	1126	1540	1955	2369	2784	3198
48	020	3613	4027	4442	4856	5270	5684	6099	6513	6927	7341
49		7755	8169	8583	8997	9411	9824	0238	0652	1066	1479
1050	021	1893	2307	2720	3134	3547	3961	4374	4787	5201	5614

FIG. 27. Sample Page from Table of Logarithms to Seven Decimal Places

numbers such as typical interest rates are often given in special tables to a considerable number of places. Langer and Gill (Mathematics of Accounting and Finance) give 15-place logs of 240 interest rates (in the form of $1 + i$) running from 1.00025% to 1.10000%. Kent's tables (Compound Interest and Annuity Tables) give 10-place logs of 168 fractional interest rates (in the form $1 + i$) for the most commonly useful rates from 1/20 of 1% to 10%. Good tables of logs commonly available are Chambers' and Vega's.

The usual form of 7-place log tables (see Fig. 27 for sample page) lists the first four digits of the number down the left margin of the page, the last digit of the number across the top of the page, and the decimal part of the corresponding logs (i.e., the **mantissa**) in ten columns on the body of the page. Since the first two or three digits of the mantissa repeat for considerable ranges, they are often placed in a special column at the left and shown only when they change.

FINDING THE LOG OF A NUMBER.—By reference to the sample page shown (Fig. 27), the technique of finding the log of a number may be illustrated. To find the log of 10,326, look down the number column at the left to number 1032 and along its line to the column headed 6. The number 9321 together with the first three non-repeated digits at left gives the complete mantissa, .013 9321. The whole number part of the log (its **characteristic**) is 4, since the number 10,326 lies between 10,000 and 100,000. Thus the complete log is 4.013 9321. If the number had been 1,032.6, the process of finding its log would have been the same, since it is composed of the same sequence of digits, except that its characteristic would have been 3 and the resulting log 3.013 9321.

In the table, the light ruling above the last four digits of some of the mantissas indicates that those four digits are to be used with the non-repeated digits on the next lower line. For instance, the log of 10,352 is 4.015 0243; the log of 104.26 is 2.018 1177.

Finding the characteristic for numbers less than 10 and for decimals is simply an extension of this process as is seen by an inspection of the following:

log	10,326	=	4.013 9321	
log	1,032.6	=	3.013 9321	
log	103.26	=	2.013 9321	
log	10.326	=	1.013 9321	
log	1.0326	=	.013 9321	
log	.10326	=	$-1 + .013\ 9321$	(or 9.013 9321 − 10)
log	.010326	=	$-2 + .013\ 9321$	(or 8.013 9321 − 10)
log	.0010326	=	$-3 + .013\ 9321$	(or 7.013 9321 − 10)
log	.00010326	=	$-4 + .013\ 9321$	(or 6.013 9321 − 10)

Log .010326 can be written in the two methods shown or as $\bar{2}.0139321$, the mantissa remaining positive. All three methods are mathematically identical. The method of showing it as 8.0139321 − 10 is preferred by some in actual calculations.

INTERPOLATION.—When it is necessary to find the log of a number which is not given directly in the table, recourse may be had to interpolation. Find, for example, the log of 103,265 in the sample

log table given. The table gives directly the mantissa for 103,260, which is .013 9321, and for 103,270, which is .013 9742. Since the selected number lies half-way between 103,260 and 103,270 by the general rules of interpolation its mantissa will lie half-way between the mantissas of those numbers and may be calculated as follows:

$$.013\ 9321 + \tfrac{1}{2}\ (.013\ 9742 - .013\ 9321) = .013\ 9532$$

Having found the mantissa, the characteristic is determined and the complete log is 5.013 9532. Similarly, it may be assumed that the log of 103,263 lies 3/10 of the way from log of 103,260 to log of 103,270. The calculation is as follows:

$$.013\ 9321 + 3/10\ (.013\ 9742 - .013\ 9321) = .013\ 9447$$

and the complete log is 5.013 9447.

The differences between successive mantissas on the sample page vary from 435 to 413. Most log tables include on the margins of the pages small tables of proportional parts to facilitate the calculation of the interpolation. The excerpt given is illustrative. For the number 103,263 the mantissa (using the table of proportional parts) is calculated as follows:

$$.013\ 9321 + .0000126 = .013\ 9447$$

	P. P. 421
.1	42.1
.2	84.2
.3	126.3
.4	168.4
.5	210.5
.6	252.6
.7	294.7
.8	336.8
.9	378.9

FINDING THE ANTI-LOG.—Finding the number whose log is known (i.e., the anti-log) is the reverse of the process of finding the log when the number is known.

Example. Find the anti-log of 2.018 0135. Referring to Fig. 27, the given mantissa of .018 0135 is found to lie between the tabulated mantissas of .017 9927 and .018 0344, corresponding to the number 10423 and 10424, respectively. The computation is then arranged as follows:

$$\begin{array}{r} 2.0180135 \\ 2.0179927 \quad \ldots\ 10423 \\ \hline \dfrac{208}{417} = .5 \end{array}$$

$$\text{Anti-log } 2.0180135 = \underline{\underline{104.235}}$$

The procedure is thus to find the next lower mantissa in the log table and to write down the number corresponding to it in the left-hand margin as well as the one at the top of the column. The difference between the given log and the next lower one (.0000208, but written simply as 208) is divided by the tabular difference (between the next lower and next higher log or 417). The quotient, .5, is added to the previously found figure. The final step is placing the decimal point. Since the given characteristic is 2, the number is 104.235.

With a characteristic of zero and the given mantissa of .018 0135 the anti-log is 1.04235. Given the logarithm 7.018 0135 − 10 the anti-log is .00104235.

USING LOGS TO SOLVE PROBLEMS.—The use of logs in solving problems depends entirely on knowledge of the laws of exponents or powers. These laws may be demonstrated by setting up a series of parallel illustrations simple enough to be checked by actual arithmetic calculation.

Case I. To multiply numbers:

a. $x^2 \times x^5 = x^7$ (by the laws of algebra)
b. $2^2 \times 2^4 = 2^6$ (i.e., $4 \times 16 = 64$)
c. $10^3 \times 10^4 = 10^7$ (i.e., $1{,}000 \times 10{,}000 = 10{,}000{,}000$)
d. $10^{4.006\ 8510} \times 10^{2.012\ 1198} = 10^{6.018\ 9708} = 1{,}044{,}650^*$
(i.e., $10{,}159 \times 102.83 = 1{,}044{,}649.97^*$)

* There is a slight error if 7-place logs are used for figures as large as these. The answer is 1,044,650.

The rule illustrated by this demonstration is as follows: To multiply two or more numbers, add their logs and find the anti-log.

Example. Multiply $578.3 \times .0016122$.

$$\begin{array}{lll} \log 578.3 & = 2.762153 & \text{(Table Fig. 28c)} \\ \log .0016122 & = \underline{3.207419} & \text{(Table Fig. 28a, interpolated)} \\ & \overline{1.969572} & \\ & \underline{\quad\quad 56} \ldots 9323 & \\ & \frac{16}{46} = .3 & \end{array}$$

Answer .93233

Case II. To divide numbers:

a. $x^9 \div x^4 = x^5$ (by the laws of algebra)
b. $2^5 \div 2^2 = 2^3$ (i.e., $32 \div 4 = 8$)
c. $10^6 \div 10^4 = 10^2$ (i.e., $1{,}000{,}000 \div 10{,}000 = 100$)
d. $10^{3.019\ 3240} \div 10^{1.016\ 0300} = 10^{2.003\ 2940} = 100.76135$
(i.e., $1{,}045.5 \div 10.376 = 100.76137$)
e. $10^{1.016\ 0300} \div 10^{3.019\ 3240} = 10^{7.996\ 7060-10} = .009924440$
(i.e., $10.376 \div 1{,}045.5 = .009924438$)

The rule illustrated by this demonstration is as follows: To divide one number into another, subtract the log of the divisor from the log of the dividend and find the anti-log.

Example 1. Divide 563.41 by 15.532.

$$\begin{array}{ll} \log 563.41 = & 2.750825 \\ \log 15.532 = & \underline{1.191227} \\ & \overline{1.559598} \\ & \underline{\quad\quad 48} \ldots 3627 \\ & \frac{50}{119} = .4 \end{array}$$

Answer 36.274

Example 2. Divide 54.83 by .09464

$$\begin{array}{rl} \log 54.83 & = \bar{1}.739018 \\ \log .09464 & = \bar{2}.976075 \\ & \overline{2.762943} \\ & \underline{\quad 04} \quad . \ . \ . \quad 5793 \\ & \overline{39} \\ & \overline{74} = .5 \end{array}$$

Answer $\underline{\underline{579.35}}$

Note that in subtracting the negative from the positive characteristic, it is necessary to change the sign of the former, then add.

Case III. To raise to a power:

a. $(x^2)^4 = x^{2 \times 4} = x^8$ (by the laws of algebra)
b. $(2^3)^4 = 2^{3 \times 4} = 2^{12}$ [i.e., $(8)^4 = 2^{12} = 4{,}096$]
c. $(10^4)^2 = 10^{4 \times 2} = 10^8$ [i.e., $(10{,}000)^2 = 10^8 = 100{,}000{,}000$]
d. $(10^{3.017\ 8677})^3 = 10^{9.053\ 6031} = 1{,}131{,}400{,}000$
[i.e., $(1{,}042)^3 = 1{,}131{,}366{,}088$]

The rule illustrated by this demonstration is as follows: To raise any number to a power, multiply its log by the exponent of the power and find the anti-log.

Example. Case III is applicable to compound interest problems where annuity or interest tables are not available or fail to give the desired information.

Find the compound amount of $905.40 for 10 years at 3.32%.

The formula for the compound amount developed earlier in this Section is:

$$A = P \times (1 + i)^n$$

$$\begin{array}{lll} A & = 905.40 \times 1.0332^{10} & \\ \log A & = \log 905.40 + 10 \log 1.0332 & \\ \log 905.40 & = & 2.956840 \quad \text{(Fig. 28d)} \\ \log 1.0332 & = \quad .013680^* & \\ & \underline{\times \quad 10} & \underline{\quad .136800} \\ & & \overline{3.093640^*} \\ & & \underline{\quad 422} \quad . \ . \ . \quad 1240^* \\ & & \overline{218} \\ & & \overline{350} = .6 \end{array}$$

Answer $\underline{\underline{\$1{,}240.60}}$

* Figures not given in sample tables.

Case IV. To find a root:

a. $\sqrt[3]{x^{12}} = x^{12 \div 3} = x^4$ (by the laws of algebra)
b. $\sqrt[3]{2^6} = 2^{6 \div 3} = 2^2 = 4$ (i.e., $\sqrt[3]{64} = 4$)
c. $\sqrt[4]{10^8} = 10^{8 \div 4} = 10^2 = 100$ (i.e., $\sqrt[4]{100{,}000{,}000} = 100$)
d. $\sqrt[5]{10^{5.456\ 5760}} = 10^{5.456\ 5760 \div 5} = 10^{1.091\ 3152} = 12.34$

(i.e., $\sqrt[5]{286{,}138} = 12.34$)

The rule illustrated by this demonstration is as follows: To find the root of any number, divide the log of the number by the index of the root and find the anti-log.

In the following illustrations, finding the value of n is equivalent to extracting the nth root.

Example 1. How long will it take for 1,675 to accumulate to 2,000 at 3% per annum?

$$A = P(1+i)^n$$
$$2000 = 1675\,(1.03)^n$$
$$\log 2000 = \log 1675 + n \log 1.03$$
$$n \log 1.03 = \log 2000 - \log 1675$$
$$n = \frac{\log 2000 - \log 1675}{\log 1.03}$$
$$= \frac{3.301030 - 3.224015}{.012837}$$
$$= \frac{.077015}{.012837} = 6$$
$$n = 6 \text{ years}$$

Example 2. Company A on July 1, 1945 issued \$300,000 bonds, 6%, interest payable semiannually. The bonds are in denominations of \$1,000 and are to be redeemed at par and accrued interest. How long will it take to pay them off if the corporation has budgeted \$25,000 each period for interest and bond redemption?

$$A_0 = R \times a_{\overline{n}|i}$$
$$300{,}000 = 25{,}000 \times \frac{1 - \frac{1}{1.03^n}}{.03}$$
$$\frac{300{,}000 \times .03}{25{,}000} = 1 - \frac{1}{1.03^n}$$
$$.36 = 1 - \frac{1}{1.03^n}$$
$$\frac{1}{1.03^n} = 1 - .36 = .64$$
$$1.03^n = \frac{1}{.64}$$
$$n \log 1.03 = \log 1 - \log .64$$
$$n = \frac{\log 1 - \log .64}{\log 1.03}$$
$$n = \frac{0 - \bar{1}.806180}{.012837} = \frac{-(-1 + .806180)}{.012837}$$
$$= \frac{-(-.193820)}{.012837} = \frac{.193820}{.012837}$$
$$n = 15.1 \text{ semiannual periods.}$$

Compare this solution with the one on page 1208.

Case V. Successive calculations: When the solution of a practical problem requires several successive calculations the final result may often be determined by a careful manipulation of the logs without the necessity of finding the anti-logs for partial solutions.

Example 1. A corporation on January 1, 1947 issued bonds due January 1, 1955 in the amount of $250,000. The bonds are to be retired by a sinking fund to which semiannual payments are to be made. If the fund earns 1.7% per period on an average, what is the size of each payment?

The formula developed earlier in this section is

$$R = A_n \times \frac{1}{s_{\overline{n}|i}}$$

There are 16 payments. Hence

$$R = 250{,}000 \times \frac{1}{s_{\overline{16}|.017}}$$

Since 1.7% is not in the table (Fig. 16), logs must be used.

$$R = 250{,}000 \times \frac{.017}{1.017^{16} - 1}$$

$$= 250{,}000 \times \frac{.017}{1.3096 - 1}$$

$$= 250{,}000 \times \frac{.017}{.3096}$$

$\log 1.017 =$ .007321 × 16 = .117136

6940 . . . 1309

196/331 = .6

$1.017^{16} = 1.3096$

The calculation of 1.017^{16} is shown above to the right. Its value is then substituted in the formula. The problem can now be finished by logs.

$\log 250{,}000 = 5.397940$

$+ \log .017 = \bar{2}.230449$

$- \log .3096 = (\bar{1}.490801)^*$

$\log R = 4.137588$

354 . . . 1372

234/317 = 7

$$R = \$13{,}727$$

* Figure not given in sample table.

Example 2. The calculation of the geometric average of ten numbers requires the finding of the product of the ten numbers, and then the extraction of the 10th root of the product. Using logs, this is accomplished as follows:

log 16	=	1.204 1200
log 18	=	1.255 2725
log 19	=	1.278 7536
log 19.2	=	1.283 3012
log 19.6	=	1.292 2561
log 19.9	=	1.298 8531
log 20	=	1.301 0300
log 20.5	=	1.311 7539
log 21	=	1.322 2193
log 23	=	1.361 7278
log of the product	=	12.909 2875
log of the 10^{th} root	=	12.909 2875 ÷ 10 = 1.290 92875

10^{th} root = geometric average = 19.54 +

Six-Place Logarithms of Numbers
(From 1500 to 1699)

N.	0	1	2	3	4	5	6	7	8	9	Diff.
150	17 6091	6381	6670	6959	7248	7536	7825	8113	8401	8689	289
1	8977	9264	9552	9839	18 0126	0413	0699	0986	1272	1558	287
2	18 1844	2129	2415	2700	2985	3270	3555	3839	4123	4407	285
3	4691	4975	5259	5542	5825	6108	6391	6674	6956	7239	283
4	7521	7803	8084	8366	8647	8928	9209	9490	9771	19 0051	281
155	19 0332	0612	0892	1171	1451	1730	2010	2289	2567	2846	279
6	3125	3403	3681	3959	4237	4514	4792	5069	5346	5623	278
7	5900	6176	6453	6729	7005	7281	7556	7832	8107	8382	276
8	8657	8932	9206	9481	9755	20 0029	0303	0577	0850	1124	274
9	20 1397	1670	1943	2216	2488	2761	3033	3305	3577	3848	272
160	4120	4391	4663	4934	5204	5475	5746	6016	6286	6556	271
1	6826	7096	7365	7634	7904	8173	8441	8710	8979	9247	269
2	9515	9783	21 0051	0319	0586	0853	1121	1388	1654	1921	267
3	21 2188	2454	2720	2986	3252	3518	3783	4049	4314	4579	266
4	4844	5109	5373	5638	5902	6166	6430	6694	6957	7221	264
165	7484	7747	8010	8273	8536	8798	9060	9323	9585	9846	262
6	22 0108	0370	0631	0892	1153	1414	1675	1936	2196	2456	261
7	2716	2976	3236	3496	3755	4015	4274	4533	4792	5051	259
8	5309	5568	5826	6084	6342	6600	6858	7115	7372	7630	258
9	7887	8144	8400	8657	8913	9170	9426	9682	9938	23 0193	256

PROPORTIONAL PARTS

Diff.	1	2	3	4	5	6	7	8	9
290	29.0	58.0	87.0	116.0	145.0	174.0	203.0	232.0	261.0
289	28.9	57 8	86.7	115.6	144.5	173.4	202.3	231.2	260.1
288	28.8	57 6	86.4	115.2	144 0	172.8	201.6	230.4	259.2
287	28.7	57.4	86.1	114 8	143.5	172.2	200.9	229 6	258.3
286	28.6	57.2	85.8	114.4	143.0	171.6	200.2	228.8	257.4
285	28.5	57.0	85.5	114.0	142.5	171.0	199.5	228.0	256.5
284	28.4	56.8	85.2	113.6	142.0	170.4	198.8	227.2	255.6
283	28 3	56.6	84.9	113 2	141.5	169.8	198.1	226.4	254.7
282	28.2	56.4	84.6	112.8	141.0	169.2	197.4	225.6	253.8
281	28.1	56.2	84.3	112.4	140.5	168.6	196.7	224.8	252.9
280	28.0	56.0	84.0	112.0	140.0	168.0	196.0	224.0	252.0
279	27.9	55.8	83.7	111.6	139.5	167.4	195.3	223.2	251.1
278	27.8	55.6	83.4	111.2	139.0	166.8	194.6	222.4	250.2
277	27.7	55.4	83.1	110.8	138.5	166.2	193.9	221.6	249.3
276	27.6	55.2	82.8	110.4	138.0	165.6	193.2	220.8	248.4
275	27.5	55.0	82.5	110.0	137.5	165.0	192.5	220.0	247.5
274	27.4	54.8	82.2	109.6	137.0	164.4	191.8	219.2	246.6
273	27.3	54.6	81.9	109.2	136.5	163 8	191.1	218.4	245 7
272	27.2	54.4	81.6	108.8	136.0	163.2	190.4	217.6	244.8
271	27.1	54.2	81.3	108.4	135.5	162.6	189.7	216.8	243.9
270	27.0	54.0	81 0	108.0	135.0	162.0	189 0	216 0	243 0
269	26.9	53.8	80.7	107.6	134.5	161.4	188.3	215.2	242 1
268	26 8	53 6	80.4	107.2	134.0	160.8	187 6	214.4	241 2
267	26.7	53.4	80.1	106.8	133.5	160.2	186.9	213 6	240.3
266	26.6	53.2	79.8	106.4	133.0	159.6	186.2	212.8	239.4
265	26.5	53.0	79.5	106.0	132.5	159 0	185.5	212.0	238.5
264	26.4	52 8	79.2	105.6	132.0	158.4	184.8	211.2	237.6
263	26.3	52.6	78.9	105.2	131.5	157 8	184.1	210.4	236.7
262	26.2	52.4	78.6	104.8	131.0	157.2	183.4	209.6	235.8
261	26.1	52.2	78.3	104.4	130.5	156.6	182.7	208.8	234.9
260	26.0	52.0	78.0	104.0	130 0	156 0	182.0	208.0	234.0
259	25.9	51.8	77.7	103.6	129.5	155.4	181.3	207.2	233.1

FIG. 28a. Typical Page from 6-Place Log Table

Six-Place Logarithms of Numbers
(From 3400 to 3799)

N.	0	1	2	3	4	5	6	7	8	9	Diff.
340	53 1479	1607	1734	1862	1990	2117	2245	2372	2500	2627	128
1	2754	2882	3009	3136	3264	3391	3518	3645	3772	3899	127
2	4026	4153	4280	4407	4534	4661	4787	4914	5041	5167	127
3	5294	5421	5547	5674	5800	5927	6053	6180	6306	6432	126
4	6558	6685	6811	6937	7063	7189	7315	7441	7567	7693	126
345	7819	7945	8071	8197	8322	8448	8574	8699	8825	8951	126
6	9076	9202	9327	9452	9578	9703	9829	9954	54 0079	0204	125
7	54 0329	0455	0580	0705	0830	0955	1080	1205	1330	1454	125
8	1579	1704	1829	1953	2078	2203	2327	2452	2576	2701	125
9	2825	2950	3074	3199	3323	3447	3571	3696	3820	3944	124
350	4068	4192	4316	4440	4564	4688	4812	4936	5060	5183	124
1	5307	5431	5555	5678	5802	5925	6049	6172	6296	6419	124
2	6543	6666	6789	6913	7036	7159	7282	7405	7529	7652	123
3	7775	7898	8021	8144	8267	8389	8512	8635	8758	8881	123
4	9003	9126	9249	9371	9494	9616	9739	9861	9984	55 0106	123
355	55 0228	0351	0473	0595	0717	0840	0962	1084	1206	1328	122
6	1450	1572	1694	1816	1938	2060	2181	2303	2425	2547	122
7	2668	2790	2911	3033	3155	3276	3398	3519	3640	3762	121
8	3883	4004	4126	4247	4368	4489	4610	4731	4852	4973	121
9	5094	5215	5336	5457	5578	5699	5820	5940	6061	6182	121
360	6303	6423	6544	6664	6785	6905	7026	7146	7267	7387	120
1	7507	7627	7748	7868	7988	8108	8228	8349	8469	8589	120
2	8709	8829	8948	9068	9188	9308	9428	9548	9667	9787	120
3	9907	56 0026	0146	0265	0385	0504	0624	0743	0863	0982	119
4	56 1101	1221	1340	1459	1578	1698	1817	1936	2055	2174	119
365	2293	2412	2531	2650	2769	2887	3006	3125	3244	3362	119
6	3481	3600	3718	3837	3955	4074	4192	4311	4429	4548	119
7	4666	4784	4903	5021	5139	5257	5376	5494	5612	5730	118
8	5848	5966	6084	6202	6320	6437	6555	6673	6791	6909	118
9	7026	7144	7262	7379	7497	7614	7732	7849	7967	8084	118
370	8202	8319	8436	8554	8671	8788	8905	9023	9140	9257	117
1	9374	9491	9608	9725	9842	9959	57 0076	0193	0309	0426	117
2	57 0543	0660	0776	0893	1010	1126	1243	1359	1476	1592	117
3	1709	1825	1942	2058	2174	2291	2407	2523	2639	2755	116
4	2872	2988	3104	3220	3336	3452	3568	3684	3800	3915	116
375	4031	4147	4263	4379	4494	4610	4726	4841	4957	5072	116
6	5188	5303	5419	5534	5650	5765	5880	5996	6111	6226	115
7	6341	6457	6572	6687	6802	6917	7032	7147	7262	7377	115
8	7492	7607	7722	7836	7951	8066	8181	8295	8410	8525	115
9	8639	8754	8868	8983	9097	9212	9326	9441	9555	9669	114

PROPORTIONAL PARTS

Diff.	1	2	3	4	5	6	7	8	9
127	12.7	25.4	38.1	50.8	63.5	76 2	88 9	101.6	114.3
126	12.6	25.2	37.8	50 4	63 0	75 6	88.2	100.8	113.4
125	12 5	25.0	37.5	50.0	62.5	75 0	87 5	100.0	112.5
124	12.4	24.8	37.2	49.6	62.0	74.4	86.8	99.2	111 6
123	12.3	24.6	36.9	49.2	61.5	73.8	86.1	98.4	110.7
122	12.2	24.4	36.6	48.8	61.0	73.2	85.4	97.6	109.8
121	12.1	24.2	36.3	48.4	60.5	72.6	84.7	96.8	108.9
120	12.0	24.0	36.0	48.0	60.0	72.0	84.0	96.0	108.0
119	11.9	23.8	35.7	47.6	59.5	71.4	83.3	95.2	107.1
118	11.8	23.6	35.4	47.2	59.0	70.8	82.6	94.4	106.2
117	11.7	23.4	35.1	46.8	58.5	70.2	81.9	93.6	105.3
116	11.6	23.2	34.8	46.4	58.0	69.6	81.2	92.8	104.4
115	11.5	23.0	34.5	46.0	57.5	69.0	80.5	92.0	103.5
114	11.4	22.8	34.2	45.6	57.0	68.4	79.8	91.2	102.6

FIG. 28b. Typical Page from 6-Place Log Table

Six-Place Logarithms of Numbers
(From 5450 to 5899)

N.	0	1	2	3	4	5	6	7	8	9	Diff.
545	73 6397	6476	6556	6635	6715	6795	6874	6954	7034	7113	
6	7193	7272	7352	7431	7511	7590	7670	7749	7829	7908	
7	7987	8067	8146	8225	8305	8384	8463	8543	8622	8701	
8	8781	8860	8939	9018	9097	9177	9256	9335	9414	9493	
9	9572	9651	9731	9810	9889	9968	74 0047	0126	0205	0284	79
550	74 0363	0442	0521	0600	0678	0757	0836	0915	0994	1073	
1	1152	1230	1309	1388	1467	1546	1624	1703	1782	1860	
2	1939	2018	2096	2175	2254	2332	2411	2489	2568	2647	
3	2725	2804	2882	2961	3039	3118	3196	3275	3353	3431	
4	3510	3588	3667	3745	3823	3902	3980	4058	4136	4215	
555	4293	4371	4449	4528	4606	4684	4762	4840	4919	4997	
6	5075	5153	5231	5309	5387	5465	5543	5621	5699	5777	78
7	5855	5933	6011	6089	6167	6245	6323	6401	6479	6556	
8	6634	6712	6790	6868	6945	7023	7101	7179	7256	7334	
9	7412	7489	7567	7645	7722	7800	7878	7955	8033	8110	
560	8188	8266	8343	8421	8498	8576	8653	8731	8808	8885	
1	8963	9040	9118	9195	9272	9350	9427	9504	9582	9659	
2	9736	9814	9891	9968	75 0045	0123	0200	0277	0354	0431	
3	75 0508	0586	0663	0740	0817	0894	0971	1048	1125	1202	
4	1279	1356	1433	1510	1587	1664	1741	1818	1895	1972	77
565	2048	2125	2202	2279	2356	2433	2509	2586	2663	2740	
6	2816	2893	2970	3047	3123	3200	3277	3353	3430	3506	
7	3583	3660	3736	3813	3889	3966	4042	4119	4195	4272	
8	4348	4425	4501	4578	4654	4730	4807	4883	4960	5036	
9	5112	5189	5265	5341	5417	5494	5570	5646	5722	5799	
570	5875	5951	6027	6103	6180	6256	6332	6408	6484	6560	
1	6636	6712	6788	6864	6940	7016	7092	7168	7244	7320	76
2	7396	7472	7548	7624	7700	7775	7851	7927	8003	8079	
3	8155	8230	8306	8382	8458	8533	8609	8685	8761	8836	
4	8912	8988	9063	9139	9214	9290	9366	9441	9517	9592	
575	9668	9743	9819	9894	9970	76 0045	0121	0196	0272	0347	
6	76 0422	0498	0573	0649	0724	0799	0875	0950	1025	1101	
7	1176	1251	1326	1402	1477	1552	1627	1702	1778	1853	
8	1928	2003	2078	2153	2228	2303	2378	2453	2529	2604	75
9	2679	2754	2829	2904	2978	3053	3128	3203	3278	3353	
580	3428	3503	3578	3653	3727	3802	3877	3952	4027	4101	
1	4176	4251	4326	4400	4475	4550	4624	4699	4774	4848	
2	4923	4998	5072	5147	5221	5296	5370	5445	5520	5594	
3	5669	5743	5818	5892	5966	6041	6115	6190	6264	6338	
4	6413	6487	6562	6636	6710	6785	6859	6933	7007	7082	
585	7156	7230	7304	7379	7453	7527	7601	7675	7749	7823	
6	7898	7972	8046	8120	8194	8268	8342	8416	8490	8564	74
7	8638	8712	8786	8860	8934	9008	9082	9156	9230	9303	
8	9377	9451	9525	9599	9673	9746	9820	9894	9968	77 0042	
9	77 0115	0189	0263	0336	0410	0484	0557	0631	0705	0778	

PROPORTIONAL PARTS

Diff.	1	2	3	4	5	6	7	8	9
79	7.9	15.8	23.7	31.6	39.5	47.4	55.3	63.2	71.1
78	7.8	15.6	23.4	31.2	39.0	46.8	54.6	62.4	70.2
77	7.7	15.4	23.1	30.8	38.5	46.2	53.9	61.6	69.3
76	7.6	15.2	22.8	30.4	38.0	45.6	53.2	60.8	68.4
75	7.5	15.0	22.5	30.0	37.5	45.0	52.5	60.0	67.5

FIG. 28c. Typical Page from 6-Place Log Table

Six-Place Logarithms of Numbers
(From 9000 to 9499)

N.	0	1	2	3	4	5	6	7	8	9	Dif.
900	95 4243	4291	4339	4387	4435	4484	4532	4580	4628	4677	
1	4725	4773	4821	4869	4918	4966	5014	5062	5110	5158	
2	5207	5255	5303	5351	5399	5447	5495	5543	5592	5640	
3	5688	5736	5784	5832	5880	5928	5976	6024	6072	6120	
4	6168	6216	6265	6313	6361	6409	6457	6505	6553	6601	48
905	6649	6697	6745	6793	6840	6888	6936	6984	7032	7080	
6	7128	7176	7224	7272	7320	7368	7416	7464	7512	7559	
7	7607	7655	7703	7751	7799	7847	7894	7942	7990	8038	
8	8086	8134	8181	8229	8277	8325	8373	8421	8468	8516	
9	8564	8612	8659	8707	8755	8803	8850	8898	8946	8994	
910	9041	9089	9137	9185	9232	9280	9328	9375	9423	9471	
1	9518	9566	9614	9661	9709	9757	9804	9852	9900	9947	
2	9995	96 0042	0090	0138	0185	0233	0280	0328	0376	0423	
3	96 0471	0518	0566	0613	0661	0709	0756	0804	0851	0899	
4	0946	0994	1041	1089	1136	1184	1231	1279	1326	1374	
915	1421	1469	1516	1563	1611	1658	1706	1753	1801	1848	
6	1895	1943	1990	2038	2085	2132	2180	2227	2275	2322	
7	2369	2417	2464	2511	2559	2606	2653	2701	2748	2795	
8	2843	2890	2937	2985	3032	3079	3126	3174	3221	3268	
9	3316	3363	3410	3457	3504	3552	3599	3646	3693	3741	
920	3788	3835	3882	3929	3977	4024	4071	4118	4165	4212	
1	4260	4307	4354	4401	4448	4495	4542	4590	4637	4684	
2	4731	4778	4825	4872	4919	4966	5013	5061	5108	5155	
3	5202	5249	5296	5343	5390	5437	5484	5531	5578	5625	
4	5672	5719	5766	5813	5860	5907	5954	6001	6048	6095	47
925	6142	6189	6236	6283	6329	6376	8423	6470	6517	6564	
6	6611	6658	6705	6752	6799	6845	6892	5939	6986	7033	
7	7080	7127	7173	7220	7267	7314	7361	7408	7454	7501	
8	7548	7595	7642	7688	7735	7782	7829	7875	7922	7969	
9	8016	8062	8109	8156	8203	8249	8296	8343	8390	8436	
930	8483	8530	8576	8623	8670	8716	8763	8810	8856	8903	
1	8950	8996	9043	9090	9136	9183	9229	9276	9323	9369	
2	9416	9463	9509	9556	9602	9649	9695	9742	9789	9835	
3	9882	9928	9975	97 0021	0068	0114	0161	0207	0254	0300	
4	97 0347	0393	0440	0486	0533	0579	0626	0672	0719	0765	
935	0812	0858	0904	0951	0997	1044	1090	1137	1183	1299	
6	1276	1322	1369	1415	1461	1508	1554	1601	1647	1693	
7	1740	1786	1832	1879	1925	1971	2018	2064	2110	2157	
8	2203	2249	2295	2342	2388	2434	2481	2527	2573	2619	
9	2666	2712	2758	2804	2851	2897	2943	2989	3035	3082	
940	3128	3174	3220	3266	3313	3359	3405	3451	3497	3543	
1	3590	3636	3682	3728	3774	3820	3866	3913	3959	4005	
2	4051	4097	4143	4189	4235	4281	4327	4374	4420	4466	
3	4512	4558	4604	4650	4696	4742	4788	4834	4880	4926	
4	4972	5018	5064	5110	5156	5202	5248	5294	5340	5386	46
945	5432	5478	5524	5570	5616	5662	5707	5753	5799	5845	
6	5891	5937	5983	6029	6075	6121	6167	6212	6258	6304	
7	6350	6396	6442	6488	6533	6579	6625	6671	6717	6763	
8	6808	6854	6900	6946	6992	7037	7083	7129	7175	7220	
9	7266	7312	7358	7403	7449	7495	7541	7586	7632	7678	

PROPORTIONAL PARTS

Dif.	1	2	3	4	5	6	7	8	9
47	4.7	9.4	14.1	18.8	23.5	28.2	32.9	37.6	42.3
46	4.6	9.2	13.8	18.4	23.0	27.6	32.2	36.8	41.4
45	4.5	9.0	13.5	18.0	22.5	27.0	31.5	36.0	40.5
44	4.4	8.8	13.2	17.6	22.0	26.4	30.8	35.2	39.6
43	4.3	8.6	12.9	17.2	21.5	25.8	30.1	34.4	38.7

FIG. 28d. Typical Page from 6-Place Log Table

Slide Rule

SLIDE RULE DEFINED.—A slide rule is a calculating device based on logarithms. It can be used for original computations in which three or four digits in the result are sufficient and for checking computations otherwise made. Calculations involving multiplication, division, powers, and roots are performed with its help.

This instrument can be used for checking a payroll at any rate per hour, for solving any problem solvable by proportion; calculating interest, discount, or percentage; converting foreign money to equivalent domestic money, any measure to a related measure, etc. Its great advantage is that the computations are made almost instantly by simply moving the slide back and forth. In continued multiplication or division intermediate partial results need not be read, and the final result can be obtained without such reading of results of intermediate processes.

SCALES OF THE SLIDE RULE.—The ordinary slide rule has four principal scales on its face, usually called the A, B, C, and D scales (Fig. 29). The A and B scales are subdivided in the same way, and the C and D scales are also subdivided alike. A and B scales are repeated scales, each half representing a full scale, and being one-half as long as a C or D scale.

Any one of these scales may be used to represent any real number of the number system, either exactly or approximately. The first (left) digit of the number is represented by one of the ten major divisions of the scale. The second digit from the left by one of the second order of divisions following this selected major division, and so on.

For example, in Fig. 30, reading from left to right over the scale, the large digits printed at the points of division may be designated as 1, 2, 3 . . . 10; or 10, 20, 30, 40 . . . 100; or 100, 200, 300, 400 . . . 1,000. By showing ten major divisions, and the next order of divisions (10 between each two of the major divisions), it is possible to pick out exactly the first two digits of any number, or any number having the first two digits other than zero, followed by any number of zeros. In other words, a slide rule gives only the sequence of digits, without the decimal points.

Reading the Scales.—In Fig. 30 the position on the scale pointed out by the first arrow on the left may be read 1.3, 13, 130, 13,000, etc. Similarly, the second arrow points to a scale division following the large 2 and is four second order units beyond 2. This position indicates a number whose first two digits are 24, and may read .24, 2.4, 24, 240, etc., depending on the nature of the computation. Note that second order divisions are shown between large 1 and large 2, and between large 2 and large 3, but not between the remaining first order divisions. In Fig. 30 the third arrow from the left is pointing exactly at the position which represents .45, 45, 450, 4,500, etc.

Spacing between first order digits 2 and 3, and between 3 and 4, shows all second order divisions by long strokes or cross lines on the scale. The space is too small to show all third order divisions between these second order divisions. Each *two* digits of the third order are indicated, however.

On the C and D scales from left digit 4 to left digit 10, only every 5 units of the **third** order are shown by the smallest spaces.

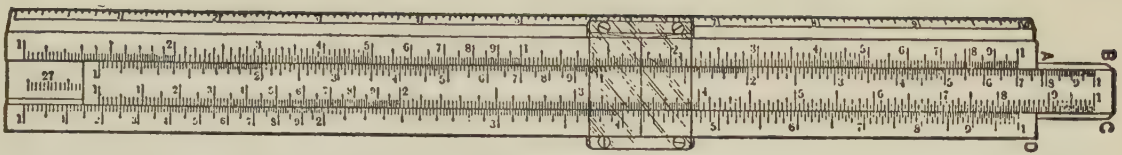


FIG. 29. Slide Rule

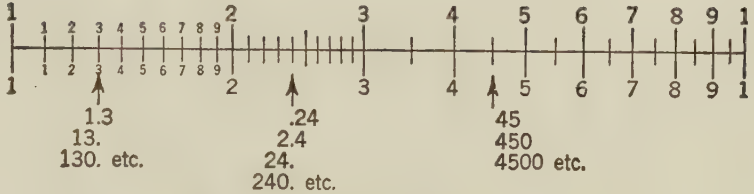


FIG. 30. Division Points on Slide Rule

Relation of Scales to Logarithms.—The scales of a slide rule really represent a log table in graphic form. Since the mantissa of log 1 is 0, the first order digit 1 is 0 distance from the left end of the scale. Since the mantissa of log 2 is .301030, the distance from 1 to 2 represents .301 of the length of the entire scale. Similarly, the distance from 1 to 3 is .477 of the length of the scale, because mantissa of log 3, log 300, etc. = .477121 (Fig. 31).

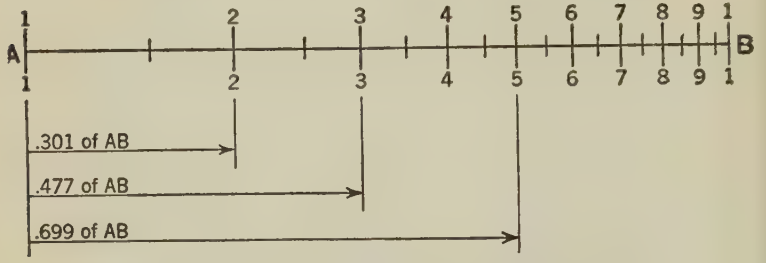


FIG. 31. Relation of Slide Rule to Logarithms

MULTIPLICATION BY USE OF SLIDE RULE.—To multiply two numbers their logs are added. Since the distances to numbers on a slide rule scale represent the mantissas of numbers scored there, multiplication may be accomplished by adding line segments on the slide rule. Fig 32 shows multiplication of 15×2. Set left index of C over 15 on D scale; then go to 2 on C, and under it read 3 (i.e., 30) on D.

In many cases of multiplying, the sum of the mantissas of the numbers multiplied is greater than 1. In this case, if the slide is moved to the right, the multiplier is off the C scale to the right, and in this position the product cannot be read. When this happens, set the right index of C over the multiplicand on D, go to the multiplier on C, and drop down to product under it on D. Thus, multiplying 3 by 6 is accomplished as in Fig. 33.

Note that when the slide is placed as shown, the product of 3 multiplied by 6, 5, or 4 may be read. On D, under large 6 is 18, under 4 is 12, and under 5 is found 15.

Fixing the Decimal Point in Product.—If when the product is obtained, the slide projects to the right the characteristic of the log of the product is the sum of the characteristics of the logs of the numbers multiplied.

Example: Multiply 15 by 175

Setting left index of C over 15 on D; under 175 on C read 2625 on D. The slide projects to the right.

Characteristic of log	$15 = 1.$
Characteristic of log	$175 = 2.$
Characteristic of product	$= 3.$

Therefore there are four digits to left of decimal point. The answer is 2625.

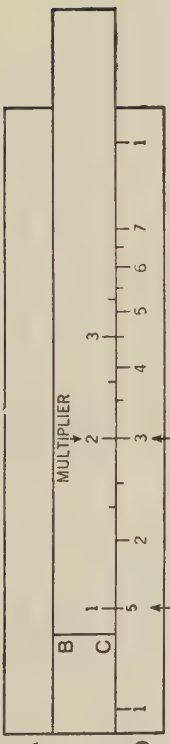


FIG. 32. Multiplication on Slide Rule

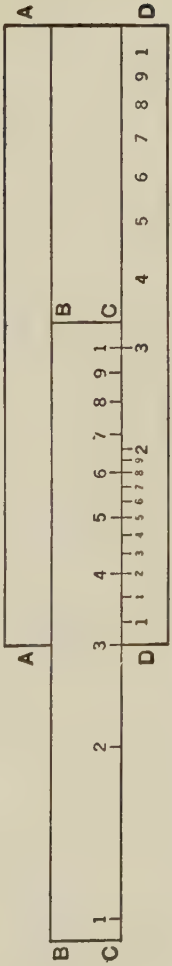


FIG. 33. Multiplication on Slide Rule

If in multiplying, the slide must be moved to the left to be able to read the product on D, it means that the sum of the mantissas of the logs of the numbers is greater than 1, and therefore the sum of mantissas of logs of the numbers must be **increased by 1.**

Example: Multiply 85 by 33

Setting **right** index of C over 85 on D, under 33 on C read 280 +, with the slide projecting to the left.

Characteristic of log $85 = 1$.
Characteristic of log $33 = 1$.
Characteristic of product $= 3$. (i.e., $2 + 1$).

There are 4 digits in the product. Since right digit 5 by right digit 3 gives 15, the product must end in 5. The number is 2805.

Continued Multiplication.—The runner of the slide rule with its hair-line makes continued multiplications easy. Suppose the product $14 \times 13 \times 70$ is desired. Set the left index of C over 14 on D, and move runner so that the hair-line crosses 13 on C. This marks on the D scale the product of 14×13. Now pull the slide to the right bringing the left index of C under the hair-line. Move the right index of C under the hair-line, and read the digits 1234 on D under 7 on C. As the characteristics of the logarithms of the factors are 1, 1, 1, and there is 1 to carry (slide moved left once), the characteristic of the product is 4; hence there are five digits to the left of the decimal, and the product is 12,740.

DIVISION BY USE OF SLIDE RULE.—Division on the slide rule is performed by subtracting line segments, which is equal to subtracting the mantissas of the logs of the numbers. The procedure is to select the dividend or numerator on the D scale; then set the divisor or denominator on C over the dividend on D; read the quotient under 1 of the C scale.

Example 1. In dividing 8 by 4, when the divisor 4 is set above 8 on D, the left index of C remains above D. Under it read quotient 2. Note that the slide projects to the **right** in Fig. 34.

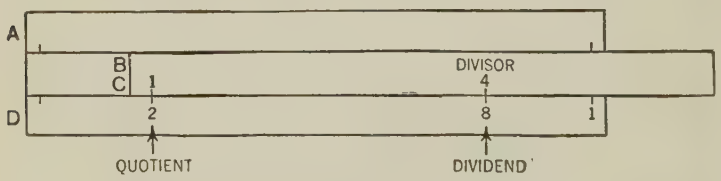


Fig. 34. Division on Slide Rule

Fixing the Decimal Point in the Quotient.—Subtract the characteristic of the log of the divisor from that of log of the dividend. If the slide projects to the right, the difference is the characteristic of the log of the quotient. If the slide projects to the left in performing the division, reduce this difference by 1 in order to find the characteristic of the log of the quotient.

Example 1. $445 \div 31$; slide projects right.

Characteristic log	$445 = 2.$
Characteristic log	$31 = 1.$
Characteristic log of the quotient	$= 1.$

Therefore the quotient is 14.35.

Example 2. $2.3 \div .032$. The digits of the quotient are 719, and the slide projects to the **left** in dividing.

Characteristic log	$2.3 = \underline{0}.$
Characteristic log	$.032 = \overline{2}.$
Characteristic log of quotient	$= 1.$ $[0 - (-2) - 1 = +1]$

The quotient is 71.9 approximately.

Continued Multiplication and Division.—The approximate result, correct to three digits, can be found by the slide rule in such examples as the following:

Find the value of the expression

$$\frac{8.7 \times 45 \times 155}{9.2 \times 48.5 \times 12.5}$$

Using the runner as described under continued multiplication, the product $8.7 \times 45 \times 155$ is obtained. This result is then divided by 9.2; the resulting first quotient by 48.5, and the second quotient by 12.5. Under the left index C read the digits of the final result: 1, 0, 8, 8. To fix the decimal point, indicate in the numerator and denominator the characteristics of the factors. To these, both in the numerator and the denominator, add 1 for each time the slide projects **left** in carrying out the operations. In the example above, the slide projected left once in the dividend multiplying and once in carrying out the successive divisions. These facts may be indicated thus:

$$\begin{array}{l} 0 \quad 1 \quad 2 \quad +1 = \quad 4 \\ \underline{8.7 \times 45 \quad \times 155} \\ 9.2 \times 48.5 \times 12.5 \\ 0 \quad 1 \quad 1+1 = \quad 3 \end{array}$$

Characteristic of the log of the quotient $= +1$

As the digits of the final result are 1088, and the characteristic is +1, there are two digits to the left of the decimal point. Hence the quotient is 10.88 approx.

SECTION 27

GOVERNMENT FINANCING AGENCIES

CONTENTS

PAGE

The Role of Government Agencies

Reasons for development 1245
Government vs. private financing 1245
Kinds of government agencies 1246

Domestic Business Financing Agencies

The Reconstruction Finance Corporation 1246
General loan policies..... 1248
Loan policy in present emergency 1250
Industrial advances by Federal Reserve banks 1251
Credits to finance war surplus purchases 1251

Agencies to Finance Agriculture

Farm credit problem 1251
The agricultural credit system 1252
Farm Credit Districts 1252
Farm credit districts (*f.* 1) 1253
Activities of the Farm Credit Administration 1253
Farm mortgage lending 1254
Borrowing through a farm loan association 1254
Federal Farm Mortgage Corporation 1255
Short-term agricultural credits 1255
Production Credit Associations 1256
Bank for Cooperatives 1256
Rediscount facilities for farm loans 1257
Federal Intermediate Credit Banks 1257
Regional Agricultural Credit Corporations 1258
The Commodity Credit Corporation.. 1259
The Rural Electrification Administration 1259
The Farmers Home Administration.. 1259

Agencies to Finance Housing

Federal housing aid 1260
Federal Housing Administration 1260

PAGE

Federal Housing Administration—*Cont'd*
Types of F.H.A. insurance 1261
The Federal Home Loan Bank System 1262
The Federal Savings and Loan Insurance Corporation 1263
The Home Owners Loan Corporation 1263
Mortgage investment companies 1264
RFC Mortgage Company 1264
Federal National Mortgage Association 1264
Financing of public housing 1264

Loans to Veterans

Guaranteed loans under the Servicemen's Readjustment Act 1265
Eligibility for loans 1265
Limit of loan guaranty 1265
Purposes of loans 1265
Prohibited purposes 1266
Terms of veterans' loans 1266
Home loans for veterans 1267
Plan No. 1 — Direct loan guaranty 1267
Plan No. 2 — Insured loans and guaranteed second lien 1267
Farm loans for veterans 1267
Business loans to veterans 1268

Agencies to Finance Foreign Trade

The Export-Import Bank 1268
Lending operations 1269
Advance commitments 1269
Nonrecourse financing 1269
Conditions governing loans 1269

Inter-governmental Credit Agencies

Bretton Woods Agreements 1270
The International Monetary Fund .. 1270
Voting procedure 1271
Management 1271
The International Bank for Reconstruction and Development 1272
Management of the bank 1273
Loan policy 1273

SECTION 27

GOVERNMENT FINANCING AGENCIES

The Role of Government Agencies

REASONS FOR DEVELOPMENT.—Government agencies have had a greatly expanded role in the financial system over the past two decades. The depression of the 30's and the exigencies of World War II led to the creation of many new agencies to provide financing directly or to facilitate financing by private institutions. The International Monetary Fund and the International Bank for Reconstruction and Development are intergovernmental institutions that carry the expansion of financing by governments into the international sphere.

Many motives account for the great expansion of government-sponsored financial institutions. The creation of special institutions to provide credit freely and at low cost to farmers, the earliest example of a government financing agency in many countries, reflected the desire of governments to win political favor with farmers, to relieve debt-harassed farmers and to expand production of farm products. Promotion of business recovery has been the primary objective of the expansion of the role of government financing agencies in depression. A lowering of the cost of credit through government competition with private lending agencies has been sought also. Promotion of foreign trade, efforts to raise or stabilize commodity prices, encouragement of home ownership and improvement in the lot of low-income groups of the population have all played a part.

The relative importance of government financing agencies tends to vary with economic conditions. It increases in depression and emergency periods, and declines in eras of prosperity.

GOVERNMENT VS. PRIVATE FINANCING.—Large-scale financing by government agencies raises the question whether private institutions can maintain their services to the public in the face of competition from government-owned or sponsored agencies that obtain funds at little or no cost and that do not have to operate at a profit. Over the long run, it has been argued, expansion of government financing agencies will bring about a contraction of the private financing system. The extent to which this will take place depends largely upon the way in which government financing agencies are operated. On behalf of government financing agencies it is contended that they can extend credit in the general public interest, where private agencies do not find it practicable to do so, or charge a high rate of interest for loans.

Borrowers, however, are concerned primarily with the relative advantages and disadvantages of utilizing government agencies, rather than with the long-term implications involved.

Kinds of Government Agencies.—Government financing agencies may be grouped into those that finance domestic business, agriculture, housing, veterans and foreign trade. A separate group are intergovernmental financing agencies. They are discussed under these headings in this section.

Domestic Business Financing Agencies

THE RECONSTRUCTION FINANCE CORPORATION.—The chief government agency lending to business has been the Reconstruction Finance Corporation, created by the Reconstruction Finance Corporation Act of January 22, 1932.

Under the Reorganization Act of 1939 there were grouped under the **Federal Loan Agency** the following organizations:

Reconstruction Finance Corporation
Electric Home and Farm Authority
The RFC Mortgage Company
Disaster Loan Corporation
Federal National Mortgage Association
Federal Home Loan Bank Board
Home Owners Loan Corporation
Federal Savings and Loan Insurance Corporation
Federal Housing Administration
Export-Import Bank of Washington (Now an independent agency)

During and subsequent to 1940 the following organizations, subsidiaries and affiliates of the Reconstruction Finance Corporation, were created and were likewise grouped under the Federal Loan Agency:

Rubber Reserve Company
Metals Reserve Company
Defense Supplies Corporation
Defense Plant Corporation
War Damage Corporation
Rubber Development Corporation
Petroleum Reserves Corporation
U. S. Commercial Company
Defense Homes Corporation

All of these organizations, except those listed below, were subsequently transferred to other bureaus or departments, merged with the R.F.C. or liquidated:

Reconstruction Finance Corporation
Federal National Mortgage Association
The RFC Mortgage Company
U. S. Commercial Company
Rubber Development Corporation
War Damage Corporation

Under Reorganization Plan No. 22 of 1950 the Federal National Mortgage Association was subsequently transferred to the Housing and Home

Finance Agency. The RFC Mortgage Company, the U. S. Commercial Company, the Rubber Development Corporation, and the War Damage Corporation were dissolved and their assets transferred to the R.F.C. for liquidation.

The scope of the Corporation's functions has been extended or modified from time to time by Congress. However, the purposes of the Corporation as currently outlined by the R.F.C. Act, are to aid in financing agriculture, commerce, and industry, to encourage small business, to help in maintaining the economic stability of the country, and to assist in promoting maximum employment and production. To carry out these functions the Corporation is authorized to purchase the obligations of or make loans to any business enterprise organized or operated under the laws of any state or the United States; to make loans to any financial institutions organized under U. S. or state law; and to aid in financing specific projects authorized under Federal, state, or municipal law to purchase the securities or obligations of or make loans to states, municipalities, and political subdivisions of states; to make loans for the rehabilitation of disaster victims. It is also authorized to make loans to business enterprises, particularly small business, engaged in defense production and to nonprofit projects for civilian defense.

The R.F.C. originally had an authorized capital of $500,000,000, all of which was subscribed and paid in by the Treasury. An amendment to the R.F.C. Act in 1948 reduced the capital stock to $100,000,000. The Corporation is authorized to borrow sufficient funds from the Treasury to carry out its functions as provided by law. The rate of interest on R.F.C. obligations sold to the Treasury is based on a consideration of the current average rate on outstanding marketable obligations of the United States government on the last day of the month preceding the issuance of the Corporation's securities.

The management of the Corporation, as provided for in Reorganization Plan No. 1 of 1951, is vested in an Administrator who is appointed by the President with the advice and consent of the Senate. Lending policies are established by a Loan Policy Board which is composed of the Administrator, Deputy Administrator, the Secretaries of the Treasury and Commerce Departments, and one other member designated by the President from among the officers of the United States who are required to be appointed by and with the advice and consent of the Senate. The Secretaries and the other Presidential designee may appoint members of their staffs to act in their stead. All loan applications in excess of $100,000 to any one borrower must be referred for approval to the Board of Review, composed of five of the Corporation's experienced loan examiners. In the event that the decision of the Administrator on the granting of a loan is contrary to the recommendation of the Board of Review, the Administrator must place in the record a statement of the reasons for his action. The R.F.C. has sought throughout most of its history to avoid competing with banks or other lending institutions. Rather, it has aimed to work with them, participating in many loans where the lending institutions were unwilling to undertake the entire risk involved in a business loan.

The main office of the Reconstruction Finance Corporation is in Washington, D. C. It has branches in:

Baltimore, Maryland
El Paso, Texas
Phoenix, Arizona
San Juan, Puerto Rico
Fairbanks, Alaska

Loan agencies are located in the following cities:

Atlanta, Georgia
Birmingham, Alabama
Boston, Massachusetts
Charlotte, North Carolina
Chicago, Illinois
Cleveland, Ohio
Columbia, South Carolina
Dallas, Texas
Denver, Colorado
Detroit, Michigan
Helena, Montana
Houston, Texas
Jacksonville, Florida
Kansas City, Missouri
Little Rock, Arkansas
Los Angeles, California
Louisville, Kentucky
Minneapolis, Minnesota
Nashville, Tennessee
New Orleans, Louisiana
New York, New York
Oklahoma City, Oklahoma
Omaha, Nebraska
Philadelphia, Pennsylvania
Portland, Oregon
Richmond, Virginia
St. Louis, Missouri
Salt Lake City, Utah
San Antonio, Texas
San Francisco, California
Seattle, Washington
Spokane, Washington

The Corporation's lending policies as set forth by the Loan Policy Board are as follows:

Part I
General Loan Policies

A. General Objectives

All loans by the R.F.C. must be of such character as to accomplish one or more of the stated objectives of the R.F.C. Act, namely, to aid in financing agriculture, commerce, and industry, to encourage small business, to help in maintaining the economic stability of the country, and to assist in promoting maximum employment and production.

B. Specific Statutory Restrictions

All loans by the R.F.C. must at all times meet the following requirements of the R.F.C. Act:

1. That no financial assistance be extended unless the credit requested is not otherwise available on reasonable terms. No loan shall be made to an applicant where credit is available from private sources unless the terms, including the interest rate at which the credit is so available, are clearly unreasonable. In most cases, it should be insufficient to find only one commercia. bank unwilling to grant the loan. The applicant should show why he should not dispose of a marketable asset in order to obtain all or any portion of the funds needed.
2. That all securities and obligations purchased and all loans made be of such sound value or so secured as reasonably to assure retirement or repayment.

3. That all loans made and all obligations and securities purchased, except those of public governmental agencies, mature in 10 years or less.
4. That in agreements with banks to participate in loans wherein the Corporation's disbursements are deferred, the amount of the Corporation's participation be limited to 70% of the balance outstanding at the time of disbursement in those cases where the amount borrowed is $100,000 or less, and be limited to 60% of such amount in those cases where the total amount is over $100,000.
5. That no loan shall be made to any state, or political subdivision thereof, for the payment of ordinary governmental expenses as distinguished from specific public projects.
6. That loans to common carriers, such as railroads and airlines, must meet the standards set by the regulatory agencies, specifically the Interstate Commerce Commission and the Civil Aeronautics Board, in addition to the usual standards for all R.F.C. loans.
7. That loans to financial institutions must meet standards set by the Treasury and are subject to Treasury approval.
8. The objective in emergency disaster lending should be to relieve the hardships attendant upon such disasters. Such loans are not required to meet all the credit standards governing loans for normal purposes.
9. That no director, officer, attorney, agent, or employee of the Corporation participate directly or indirectly in the deliberation upon or determination of any question affecting his personal interests.

C. Implementation of Basic Statutory Provisions

In addition to meeting the general objectives and requirements of the R.F.C. Act, all loans shall be made in accordance with the following principles:

1. The primary consideration in determining whether to grant a loan shall be the interest of the general public rather than the interest of the individual borrower.
2. Loans shall not be granted which in effect would promote monopoly.
3. In carrying out the objectives of the R.F.C. Act, particular consideration shall be given to the credit needs of small business enterprises.

D. Particular Types of Loans Which Do Not Qualify

1. No loan shall be made to "bail out" creditors, i.e., to pay off creditors who are inadequately secured or likely to sustain a loss.
2. No loan shall be made primarily to refinance an existing debt.
3. No loan shall be made for effecting a change in the ownership of a going business or for purchasing an interest in such a business.
4. No loan shall be made for acquiring, constructing, or improving real property which is to be held for investment.
5. No loan shall be made for speculative investments or purchases.
6. No loan shall be made to an eleemosynary institution.
7. No loan shall be made to any newspaper, magazine, radio broadcasting companies, or other similar organizations.
8. No loan shall be made for providing capital to an enterprise engaged in the business of lending.

9. No loan shall be made for operating an establishment whose income is derived in whole or in part from gambling or from rental of the premises for gambling or from rental of the premises for gambling purposes.
10. No loan shall be made for operating an establishment whose income is derived predominately from the sale of alcoholic beverages.

Part II
Loan Policy in Present Emergency

In addition to the loan policies prescribed in Part I, the following principles shall be effective during the present period of defense mobilization and rearmament:

1. All loans by the R.F.C. must assist, expedite, increase, or maintain the production of goods or services necessary to meet either military requirements or essential civilian requirements.
   a. The receipt of a "certificate of necessity" for accelerated tax amortization or the receipt of a defense contract (either a prime contract or subcontract) or a purchase order by the borrower or the existence of a national shortage of a commodity or service or proof of a regional (normal market area) shortage so great that minimum needs cannot be met at a reasonable price may be considered as evidence that the loan is for a defense purpose or an essential civilian requirement.
   b. Loans for the maintenance of existing production, processing, and orderly distribution of goods and services which are customarily recognized as necessities as distinguished from luxuries may be considered loans for essential civilian requirements.
   c. Loans for conversion to essential production may be considered in the interest of national defense.
2. In each instance it should be determined as far as possible whether granting a loan will or will not be inflationary. For a loan to be considered noninflationary, the finding should indicate that the loan will produce either an increased supply of essential goods or services or the prevention of a decrease.

At the time the Reorganization Plan of 1951 went into effect, the Corporation adopted the following administrative policies:

1. The sale of all its security holdings to private investors when satisfactory prices can be obtained; such sales are conducted on a competitive bid basis.
2. Full public disclosure of all pertinent data concerning approved loans; such information is not made public prior to the approval of the loan unless the amount applied for is over $5,000,000, or the circumstances particularly unusual.
3. Required registration for all attorneys or representatives of prospective borrowers before loan applications are discussed.

From its inception through the middle of 1951, the Corporation made 124,000 loans totaling $13,447,000,000 and purchased 514,000 insured or guaranteed mortgages amounting to $3,565,000,000. On June 30, 1951, the R.F.C. held approximately 9,000 loans totaling $790,000,000 and

17,000 mortgages totaling $82,000,000. Deferred participations in bank loans amounted to $121,000,000.

INDUSTRIAL ADVANCES BY FEDERAL RESERVE BANKS.—Federal Reserve Banks were authorized in 1934 to make direct advances to established commercial or industrial enterprises for the purpose of supplying working capital, where borrowers were unable to obtain needed financial assistance on a reasonable basis from other banking sources.

Federal Reserve aid under this provision could be given:

1. In participation with a member or nonmember bank of the Federal Reserve System; and
2. Direct, without bank participation, if (a) credit is not available on a reasonable basis from the usual sources, and (b) a loan can be made on a reasonable and sound basis.

The law authorized the Federal Reserve Bank to make a commitment binding it to take over the loan at the option of the financing institution, which then remained obligated for only 20% of any loss which it might sustain. The great majority of such loans were made by commercial banks, with commitments from Federal Reserve banks to discount the paper on demand without recourse, except that the member or nonmember bank was obligated for at least 20% of any loss that might be sustained.

Due to the aggressive role of R.F.C. in financing business, this section of the Federal Reserve Act never proved of importance.

CREDITS TO FINANCE WAR SURPLUS PURCHASES.—To stimulate sales of war surplus property on credit, each of the 33 regional offices of the War Assets Administration set up a Credit Division.

Two types of credit were offered for financing surplus purchases: (1) open account credit; and (2) instalment credit. Interest charged was 4%.

Agencies to Finance Agriculture

FARM CREDIT PROBLEM.—Even before World War I, the provision of adequate credit for farmers was a major economic and political problem in the United States. The Federal Land banks were established in 1917. Over-extension of agricultural production and the loss of foreign markets for farm products following that war created serious difficulties for American farmers, especially those raising crops that had been exported in large volume. A number of agencies have been established or sponsored by the government to provide low-cost credit to farmers as a partial relief measure. At first, the establishment of these institutions was haphazard and did not follow a comprehensive plan, but later measures have tended to consolidate agricultural financing agencies into a coordinated system. Agencies extending credit on a business basis are under the Farm Credit Administration, and those extending credit to farmers unable to borrow from other lenders come under the Farmers Home Administration.

THE AGRICULTURAL CREDIT SYSTEM.—Under the supervision of the Farm Credit Administration, the agricultural credit system provides facilities for long-term and short-term loans and the financing of farmers' cooperative purchasing, marketing and business service associations. The Farm Credit Administration, in turn, has been a part of the United States Department of Agriculture since July, 1939.

The Farm Credit Administration supervises four groups of credit institutions:

1. **Federal Land Banks,** which make long-term farm mortgage loans through national farm loan associations;
2. **Production Credit Corporations,** which supervise and provide part of the capital for the permanent cooperative short-term credit system now consisting of over 500 production credit associations;
3. **Banks for Cooperatives,** which lend to farmers' cooperatives; and
4. **Federal Intermediate Credit Banks,** which are rediscount institutions supplying short-term funds required by the production credit associations, farmers' cooperatives and other agricultural lenders.

The Federal Intermediate Credit banks and the Production Credit Corporations are wholly government-owned corporations. Federal Land banks are entirely owned by farmer-borrowers through their national farm loan associations, and Banks for Cooperatives are partly owned on a cooperative basis by the cooperative associations that borrow from them.

Other government agencies rendering financial aid to agriculture include:

1. **The Federal Farm Mortgage Corporation,** which has provided funds for Land Bank Commissioner loans and assisted in financing Federal Land bank loans during the emergency farm mortgage refinancing in the early 1930's.
2. **The Farmers Home Administration,** which makes loans and provides guidance in farm management, as needed, to farmers who are unable to obtain the credit they need on reasonable terms from other sources.
3. **The Commodity Credit Corporation,** whose broad charter authorizes it "to engage in buying, selling, lending and other activities with respect to agricultural commodities, products thereof and related facilities." The C.C.C. plays a leading role in supporting prices of agricultural commodities.
4. **Regional Agricultural Credit Corporations** were established originally in 1932 by the Reconstruction Finance Corporation to furnish short-term credits to farmers and stockmen. Twelve such corporations were set up, but they have been gradually consolidated and liquidated until there remains now only the Regional Agricultural Credit Corporation of Washington, D. C.

Farm Credit Districts.—To expedite the handling of farm credit operations, the United States is divided into 12 Farm Credit Districts. Each district has a Federal Land bank, a Production Credit Corporation, a District Bank for Cooperatives and a Federal Intermediate Credit bank.

Fig. 1 shows the organizational set-up in each of the 12 farm credit districts. Information about any institution under the supervision of the **Farm Credit Administration** may be obtained from its district office. Their locations, and the states served by each, are:

Springfield, Massachusetts	Maine, New Hampshire, Vermont, Rhode Island, Massachusetts, Connecticut, New York and New Jersey
Baltimore, Maryland	Pennsylvania, West Virginia, Virginia, Delaware, Maryland, Puerto Rico and the District of Columbia
Columbia, South Carolina	North and South Carolina, Georgia and Florida
Louisville, Kentucky	Tennessee, Kentucky, Indiana and Ohio
New Orleans, Louisiana	Louisiana, Mississippi and Alabama
St. Louis, Missouri	Illinois, Missouri and Arkansas
St. Paul, Minnesota	North Dakota, Minnesota, Wisconsin and Michigan
Omaha, Nebraska	South Dakota, Wyoming, Nebraska and Iowa
Wichita, Kansas	Kansas, Oklahoma, Colorado and New Mexico
Houston, Texas	Texas
Berkeley, California	California, Nevada, Utah and Arizona
Spokane, Washington	Washington, Montana, Oregon and Idaho.

The Central Office of the Farm Credit Administration is located in Washington, D. C.

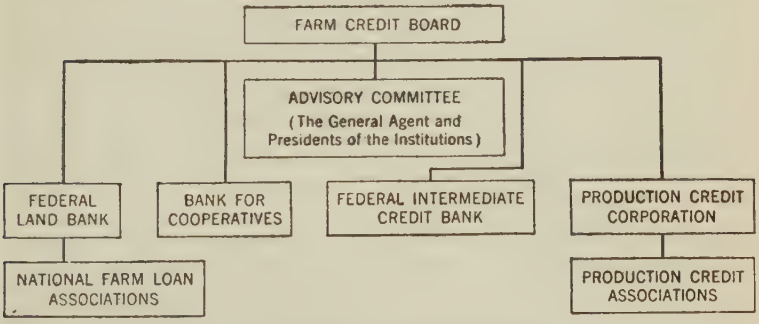


FIG. 1. Farm Credit Districts

Activities of the Farm Credit Administration.—The Farm Credit Administration is headed by a Governor, 4 Deputy Governors, and 4 commissioners—Land Bank Commissioner, Intermediate Credit Commissioner, Cooperative Bank Commissioner and Production Credit Commissioner. The Farm Credit Administration Governor reports to the Secretary of Agriculture.

Authority for the organization and activities of the Farm Credit Administration and the institutions operating under its supervision are found in the:

Federal Farm Loan Act of 1916, and amendments.
The Agricultural Credits Act of 1923.
Agricultural Marketing Act of 1929.
Emergency Relief and Construction Act of 1932.
Emergency Farm Mortgage Act of 1933.
Farm Credit Act of 1933.

Federal Farm Mortgage Corporation Act of 1934.
Farm Credit Act of 1935.
Farm Credit Act of 1937.

FARM MORTGAGE LENDING.—The 12 Federal Land banks were established in 1917 by the Federal Farm Loan Act to provide low-cost, long-term credit to farmers. All the capital stock was to be owned by the national farm loan associations organized by borrowing farmers. To get the banks started, however, in the depression years, the government subscribed to stock of the banks to provide them with additional funds. In June, 1947, the last of the capital owned by the United States government was returned and the entire system is now owned by farmer borrowers, through national farm loan associations and direct borrowers.

Federal Land banks obtain loan funds by selling consolidated bonds, the joint and several obligations of all 12 banks. They may borrow from banks or government agencies. Since 1937, Federal Land banks have been authorized to make loans to each other.

Federal Land bank bonds are secured by mortgages held. These mortgages are pledged as an aggregate; individual mortgages are not assigned as security to a particular issue of bonds.

Federal Land banks lend on the security of first mortgages on farm land, including buildings and other improvements. The Federal Land banks generally do not deal directly with borrowers, but with local cooperative associations of borrowers known as **National Farm Loan Associations.** These associations are chartered by the Farm Credits Administration on the recommendation of the Federal Land bank of the district in which the association is located. They grant loans to members after approval by the Federal Land bank of the district and, if the loan exceeds $25,000, by the Land Bank Commissioner. The mortgages are then turned over, with guaranty of payment, to the registrar of the Federal Land bank of the district.

Borrowing Through a Farm Loan Association.—When borrowing through a local Farm Loan Association, a farmer subscribes to stock in the association to an amount equal to 5% of his loan. The association, in turn, subscribes for an equal amount of Federal Land bank stock and endorses and becomes liable for the loan. When a member pays off a loan, the face value of his shares is paid him unless defaults among members of the association have impaired its capital. He ceases to be a member. Members of the association thus help to absorb losses on loans they obtain.

Federal Land bank loans may be made:

1. For the purchase of land for agricultural uses.
2. For the purchase of equipment, fertilizer, and livestock necessary for the proper operation of the mortgaged farm.
3. For buildings and improvements on farm land.
4. To pay indebtedness of the borrower incurred for agricultural purposes, or incurred at least two years prior to the date of the application for the loan.
5. To provide farmers with funds for general agricultural uses.

Land bank loans may be made to any person who is farming or raising livestock or who soon is to start farming or livestock operations; or to any person whose income is predominantly derived from farming opera-

tions. Loans may be made under certain conditions also to corporations engaged in the raising of livestock.

Mortgage loan terms are:

1. **Size of loan.** Land bank loans may be made in amounts from $100 to $100,000, but not in excess of 65% of the appraised normal value of the farm to be mortgaged.

2. **Appraisal required.** Before a loan may be made, the farm offered as security is appraised by a land bank appraiser who is a public official appointed by the Farm Credit Administration. The basis of appraisal in all cases is the normal value of the farm for agricultural purposes. The earning power of the farm measured in terms of farm production is a principal factor in determining this value.

3. **Basic interest rates.** The contract rate of interest on Federal Land bank loans is 4% per year at ten banks and 4½% at two banks.

4. **Maturity.** Land bank loans are usually made for periods ranging from 20 to 30-odd years. Some are made for shorter periods.

5. **Amortization.** Land bank loans are made repayable in regular instalments. By making small regular payments annually or semi-annually, the farmer repays his loan with interest by the end of the loan period. Any borrower from a Federal Land bank, after his loan has been in effect five years, is entitled upon any regular instalment date to repay all or any portion of his loan in advance. During the first five years of the loan, repayments require agreement between the bank and the borrower.

6. **Cost of obtaining loans.** National Farm Loan Associations may make charges not exceeding 1% of the amount of a land bank loan. Applicants are required to pay recording charges and to furnish satisfactory evidence of title.

Federal Farm Mortgage Corporation.—This Corporation was organized under the Federal Farm Mortgage Corporation Act of 1934 as an agency to relieve the frozen condition of farm mortgage lending. To provide funds for loans to farmers by the Federal Land banks and the Land Bank Commissioner, the Corporation was authorized to purchase bonds of the Federal Land banks, raising money for the purpose by selling up to $2,000,000,000 of its own bonds unconditionally guaranteed by the United States government. The Corporation issued bonds to the public and has sold short-term obligations to the United States Treasury. The Corporation liquidated its holdings and paid off its bonds and most of its capital stock in 1945 and 1946.

Joint stock land banks, also chartered under the Federal Farm Loan Act, are now being liquidated under supervision of the Farm Credit Administration.

SHORT-TERM AGRICULTURAL CREDITS.—Short-term credit to farmers and ranchers is provided through Production Credit Associations. Credit for farmers' cooperatives is available from twelve District Banks for Cooperatives and the Central Bank for Cooperatives. The Federal Intermediate Credit Banks discount acceptable agricultural paper offered to them by banks and other lending institutions to which they are authorized by law to extend credit. They are also authorized

to lend to farmers' cooperatives, but the latter borrow mainly from the Banks for Cooperatives, which in turn offer their larger commodity loans to the Federal Intermediate Credit Banks for discount.

Production Credit Associations.—There are over 500 local Production Credit Associations to which farmers and stockmen may apply for short-term loans. These associations make loans for the breeding, raising and fattening of livestock and poultry; the growing, harvesting and marketing of crops; the purchase and repair of farm machinery; the refinancing of debts; and for home improvements and other family needs. Typical purposes for which loans are used include the purchase of seed, feed, fertilizer, spray materials, farm machinery, livestock, household equipment and labor.

Chief **terms of Production Credit Loans** are:

1. **Size.** Loans vary in size according to the amount the applicant needs to carry on his business properly, his ability to repay the loan from farm income, his financial condition and farming experience.

2. **Maturity.** Production credit association loans are generally made for one year. Loans to meet expenses of an annual recurring nature are expected to be repaid from the current year's operations. When loans are of a semi-capital nature, such as the purchase of a tractor, or for refinancing debts, the unpaid balance may be renewed if satisfactory progress has been made. In such cases repayment may be spread over a 2- or 3-year period.

3. **Interest.** The rate of interest is usually about 3% above the discount rate charged by the Federal Intermediate Credit bank of the district from which the associations obtain the bulk of their loanable funds. In addition, most production credit associations charge a loan service fee related to the cost of inspection, preparing loan papers, searching lien records, etc.

Farmers or ranchers borrowing from production credit associations must become members. On becoming a member, a farmer or stockman purchases voting stock in the association at a rate of $5 for each $100 or part thereof borrowed. When a member repays his loan, he may retain his stock for use in connection with subsequent loans. Each member has one vote, regardless of the amount of stock owned.

Banks for Cooperatives.—The twelve **District Banks for Cooperatives** and the **Central Bank for Cooperatives** were established in 1933. Farmers' cooperatives of national or broad regional scope are served by the central bank, while the district banks serve those operating within the area.

To be eligible to borrow from a Bank for Cooperatives, a cooperative must be an association in which farmers act together in:

1. Processing, preparing for market, handling or marketing of farm products;
2. Purchasing, testing, grading, processing, distributing or furnishing farm supplies; or
3. Furnishing farm business services.

Three distinct **classes of loans** are made to farmers' cooperative associations. These are:

1. **Commodity loans** for very short terms on the security of pledged commodities. They may be used also for financing farm supplies such as fertilizer and feeds. Repayment is generally made from the sale proceeds received for the commodities.

2. **Operating capital loans** are for relatively short terms, and are frequently used to supplement a cooperative association's own capital fund during times of peak seasonal activity. There are no statutory requirements as to collateral for such loans. Liens on real estate, equipment or inventories are sometimes accepted. They are usually repaid at the end of the marketing season, but sometimes are made for longer periods.

3. **Facility loans.** These are made for the purpose of financing or refinancing the purchase of land, buildings and fixed equipment by cooperative associations. Security is usually a first mortgage on the property itself, and additional may be required. The loan limit is 50% of the appraised value. Maturity is limited by law to a term of 20 years but these loans generally mature within 10 years and are usually repaid in instalments.

The **terms of loans** made by the Banks for Cooperatives are:

1. **Interest.** Interest rates on the three classes of loans as of March, 1952, were: commodity loans, 2½–3%; operating capital loans, 3–3½%; and facility loans, 4–4½%.

2. **Credit standards.** The Farm Credit Act specifies that loans be made by the Bank for Cooperatives only if the association applying has organization, management and business policies of such character as to insure the reasonable safety of the loan.

3. **Acquisition of bank stock.** Cooperatives borrowing from a Bank for Cooperatives are required to own stock in the bank equal to approximately 5% of the loan, except in the case of commodity loans for which the required capital interest is approximately 1% of the loan.

Banks for Cooperatives may borrow from the Central Bank, other district banks, Federal Intermediate Credit banks or commercial banks. The Central Bank is authorized to issue debentures up to five times its paid-in capital and surplus. These debentures are secured by collateral consisting of cash, United States government obligations and notes or other obligations representing loans which the bank has made.

REDISCOUNT FACILITIES FOR FARM LOANS.—The agricultural and livestock industries require production and marketing credit with longer maturities than that normally available from commercial banks. The 12 Federal Intermediate Credit banks provide rediscount facilities for such longer-term paper, and thus make lending institutions readier to lend on this basis.

Federal Intermediate Credit Banks.—The Federal Intermediate Credit banks do not deal directly with farmers and stockmen. They may rediscount or lend on the security of agricultural paper offered them by any bank or trust company, agricultural credit corporation, incorporated livestock loan company, savings institution, cooperative bank, credit union or cooperative association of agricultural producers, and any production credit association or Bank for Cooperatives. The banks are also authorized to lend directly to farmers' cooperatives on

the security of staple agricultural commodities, livestock, or other collateral approved by the Governor of the Farm Credit Administration.

From their establishment in 1923 to June 30, 1951, these banks extended credits aggregating $17,230,000,000. Approximately $11,308,000,000 of the total was extended to production credit associations, and smaller amounts to commercial banks, livestock loan companies, agricultural credit corporations, banks for cooperatives, and farmers' cooperative associations.

Capital of $5,000,000 for each of the 12 banks was provided by the United States government. The Intermediate Credit banks have access to **several sources of funds** to finance their lending operations. These are:

1. Sale of collateral trust debentures.
2. Rediscounts with the Federal Reserve banks.
3. Loans from Reconstruction Finance Corporation.
4. Loans from or discounts with other banking institutions.

In practice, sales of debentures have been the most important source of lending funds. Consolidated debentures of the Federal Intermediate Credit bank are offered each month through security distributors. They run for terms ranging from 3 to 12 months, with interest payable at maturity. The banks may issue debentures with maturities up to 5 years, but only small amounts of 2 and 3 year debentures have been issued and none of longer maturity. Debentures may be issued up to ten times paid-in capital and surplus, secured by agricultural paper, United States government obligations or cash, with a face value equal to the debentures. The 12 banks are jointly and severally liable for the payment of both principal and interest, as with the Federal Land banks. The government assumes no liability for the obligations of the Intermediate Credit banks, such liability being expressly denied in the law.

Except with the approval of the Governor, the interest rate charged on loans and discounts may not exceed by more than 1% the rate borne by the last preceding issue of debentures. Organizations which rediscount with an Intermediate Credit bank may not charge the borrowers more than 4% in excess of the discount rate of the Intermediate Credit bank.

Regional Agricultural Credit Corporations.—As part of the emergency credit structure in the early 30's, the Emergency Relief and Construction Act of 1932 authorized the Reconstruction Finance Corporation to establish a Regional Agricultural Credit Corporation in any Federal Land Bank District where the need existed. Under this authority 12 such corporations were chartered to lend to farmers and stockmen for agricultural purposes. But these corporations never proved important because of the creation of the Production Credit System and revival of lending by commercial banks. The Farm Credit Act of 1937 authorized merger of the regional Credit Corporations into the Regional Agricultural Credit Corporation of Washington, D. C.; it was subsequently transferred to the Farmers Home Administration.

The Regional Agricultural Credit Corporation of Washington played a minor role during the war in financing food production. Occasionally it is called upon to grant "restricted area loans" to finance crops and livestock production in areas where they might not otherwise be produced.

THE COMMODITY CREDIT CORPORATION.—The Commodity Credit Corporation, created under authority of the National Industrial Recovery Act of 1933, was given a permanent charter in June, 1948, as an agency of the United States government. Authorized by its charter to engage in buying, selling, lending, and other activities with respect to agricultural commodities, the Corporation has played a major role in agricultural price support, foreign purchase, subsidy, commodity export and agricultural conservation activities. Of these, price support is of greatest importance.

The basic farm commodities for which support is mandatory are corn, cotton, wheat, rice, tobacco, and peanuts.

The so-called "Steagall" nonbasic commodities, for some of which support is mandatory and for the others permissive, include Irish potatoes, honey, wool, mohair, tung nuts, milk, butterfat, hogs, chickens, eggs, turkeys, dry edible beans, dry edible peas, soybeans for oil, flaxseed for oil, peanuts for oil, American-Egyptian cotton, sweet potatoes, naval stores, cotton seed, sugar, barley, oats, rye, and pasture grasses.

To be eligible for price support, producers must comply with acreage allotments and marketing quotas. If the latter are rejected by referendum, the support price is reduced to 50% of parity. Farmers who knowingly violate the allotments or quotas receive very low or nominal supports.

The Corporation's original capital was $3.000,000, held by the United States government, increased to $100,000,000 in 1936. In 1938, Congress provided that the Secretary of the Treasury appraise the net worth of the Corporation on June 30 of each year. If the net worth is found to be less than $100,000,000, the Secretary must restore such capital impairment. If the net worth exceeds $100,000,000, the excess is to be turned over to the Treasury. Borrowings of the Corporation are limited by law to $6.750,000,000. Its obligations are guaranteed by the United States, and the Secretary of the Treasury is authorized to purchase them if they are not sold in the open market.

Operations of the Corporation during the 1951 fiscal year showed a "profit" of $592,000,000, and may also show one for 1952.

THE RURAL ELECTRIFICATION ADMINISTRATION.—The Rural Electrification Administration, an agency of the Department of Agriculture, lends to cooperatives, municipalities and other public bodies and private utilities to finance the construction and operation of electric power facilities to serve persons in rural areas not receiving central station service. Cooperatives have received by far the bulk of R.E.A. loans. In addition to construction loans, R.E.A. lends money to its co-ops which they may re-lend to members for electrical installations.

THE FARMERS HOME ADMINISTRATION.—The Farmers Home Administration was established in 1946 through a merger of the Farm Security Administration and the Emergency Crop and Feed Loan Division of the Farm Credit Administration. It is an agency of the U. S. Department of Agriculture.

This agency makes loans and provides guidance in farm management as needed, to farmers unable to obtain credit on reasonable terms from other sources. It is authorized to make loans of two general types: (a) production and subsistence, or operating, loans for the purchase of livestock, equipment, feed, seed and other farming essentials; and (b) farm

ownership loans for the purchase, enlargement or development of family-type farms. It is also authorized to insure farm ownership loans advanced by private lenders. Veterans have preference for farm ownership loans and insured mortgages. Operating loans run from 1 to 5 years while ownership loans may run as long as 40 years.

Agencies to Finance Housing

FEDERAL HOUSING AID.—The federal government's chief contribution to home financing is not direct lending, although this was temporarily undertaken during the depression of the 30's, but rather the facilitation of mortgage lending by private financial institutions through mortgage insurance, the insurance of savings, loans to lending institutions and subsidies for public housing conducted by local authorities. Nonfarm housing activities of the federal government are consolidated in the **Housing and Home Finance Agency,** which was created by Reorganization Plan No. 3 of 1947.

Agencies concerned with home financing, which is under the supervision of the Housing and Home Finance Agency, include:

1. **The Federal Housing Administration,** which insures mortgage loans made by private financial institutions on privately constructed and owned dwellings.
2. **The Home Loan Bank Board,** whose primary function is to encourage economical home financing and to protect savings placed in thrift institutions that lend on mortgages.
3. **The Public Housing Administration,** which carries on low-rent slum clearance public housing projects.

The **Home Loan Bank Board,** in turn, supervises three organizations:

1. **The Federal Home Loan Bank System,** a permanent organization to provide reserve credit for member savings and loan associations;
2. **The Federal Savings and Loan Insurance Corporation,** a permanent organization for insuring the safety of savers' accounts in savings and loan associations; and
3. **The Home Owners' Loan Corporation,** an emergency agency which made refinancing loans to home owners threatened with foreclosure during the depression of the 30's (now in process of liquidation).

FEDERAL HOUSING ADMINISTRATION.—The Federal Housing Administration was established in 1934 by the National Housing Act to provide a system of mutual mortgage insurance. It is not a lending agency, but insures private lending institutions such as banks, trust companies, insurance companies, savings and loan associations, mortgage companies, and federal agencies against loss on real estate mortgage loans where they apply for and obtain such insurance, or commitments to insure, in advance. Borrowers who wish to take advantage of F.H.A. insurance must apply to a lending institution which has been approved as mortgagee by the Federal Housing Administrator. If a borrower knows of no such institution, he should communicate with the Federal Housing Administration's state or district office serving the area in which he resides or wishes to build.

F.H.A. has revolutionized home financing methods in the United States. The old system of relatively short-term first, second, and third mortgages, with high interest rates and renewal fees, has been replaced by the single long-term, amortized mortgage bearing a low interest rate. The maximum F.H.A. interest rate today is 4¼% under some sections and 4% under others, plus ½ of 1% insurance premium.

Chief features of the F.H.A. mortgage plan are:

1. Lower financing charges.
2. Long-term loans extending over a convenient period of years.
3. Advance by the lender of a large part of the total value.
4. Repayment in monthly instalments—about like rent—suited to the borrower's income.
5. Inclusion of taxes, interest, and hazard and mortgage insurance in the monthly payment.
6. Elimination of second mortgages and the need for periodic and expensive refinancing.
7. Protection of the lender by F.H.A. insurance.
8. Improvement of housing standards and conditions.

Types of F.H.A. Insurance.—F.H.A. insurance is of three types. Two are regulated by Titles I and II of the National Housing Act. The third type is emergency in character and is governed by Titles VI, VIII, and IX of the National Housing Act. Title VI, most of the provisions of which have expired, was designed to provide housing in critical areas during and immediately following World War II. Title IX, added in 1951, is again designed to encourage construction in defense areas.

Under Title I the Federal Housing Administrator insures qualified lending institutions against loss on loans granted to finance alterations, repairs and improvements upon existing structures and for the building of new houses costing up to $10,000. The insurance is up to 10% of the total amount of such loans made by each financial institution. The Administrator has approved 5,000 financial institutions as qualified to make loans under Title I of the National Housing Act.

Loans under Title I are divided into two classes and one section:

Class 1(a)—Loans up to $2,500, running for a maximum of 3 years and 32 days (subject to Regulation W), to finance the repair, alteration, or improvement of an existing structure or property in connection therewith. Most Title I loans are of this class, more than 90% for repairing or improving homes.

Class 1(b)—Loans up to $10,000, running for a maximum of 7 years and 32 days (subject to Regulations W and X), to finance repairs, additions, alterations, or conversions to existing structures.

Class 2(a)—Loans up to $3,000, running for a maximum of 3 years and 32 days, to finance the construction of new buildings for other than residential or agricultural purposes.

Class 2(b)—Loans up to $3,000, running for a maximum of 7 years and 32 days, or, if secured by a first lien, 15 years and 32 days, to finance new nonresidential farm construction.

Section 8—Loans up to $4,750, running for a maximum of 25 years, to finance construction of new single-family homes in suburban and outlying areas.

Title II of the National Housing Act provides for insurance of first mortgage loans on one- to four-family houses made by approved private lending institutions. Some 13,000 financial institutions throughout the United States have been approved by the Federal Housing Administrator to make F.H.A. insured mortgages on homes. Limitations on size of insurable mortgages vary with the size of the homes.

Section 203b2(A) provides for insurance on loans on proposed or existing one- to four-family houses of up to $14,000 for single-family, $16,000 for two-family, $20,500 for three-family, and $25,000 for four-family houses. The maximum loan value is 80% (subject to credit controls), and the maximum term is 25 years if approved prior to construction.

Sections 203b2(C) and (D)—Loans up to $9,450 for one-family houses with maximum loan values and maturities up to 95% and 25 years, respectively (subject to credit controls).

Section 203d—Loans for both one- to four-family residential and nonresidential farm construction and improvements. The loan maximums and maturities are similar to those under Section 203b.

Section 207—Loans on multi-family (12 or more) rental projects. The maximum loan for private corporations is $5,000,000 and for public bodies $50,000,000. The maximum loan value is 90% of the first $7,000 per family unit plus 60% of the remainder.

Section 213—Loans for nonprofit cooperative housing projects for both single-family and multi-family units. The maximum loan is $5,000,000; the maximum loan value is 90% of replacement cost (subject to credit controls), and the maximum term, up to 25 years for single-family and sales-type multi-family projects and 40 years for management-type projects.

The provisions of **Title VI,** which covered all types of residential projects, have largely expired. **Title VIII** provides for insurance of loans on mortgages for rental projects for military or atomic energy personnel. The maximum loan and loan value, respectively, are $8,100 per family unit, and 90% of replacement cost. **Title IX** covers insurance of programmed housing in designated critical defense housing areas.

Section 903—Loans on one- to two-family houses. The maximum ranges upward according to the number of bedrooms to $10,200. The maximum loan value is 90% of appraisal value and the maximum term, 30 years.

Section 908—Loans for multi-family projects. The maximum loan is $8,100 per family unit and the maximum loan value, 90% of appraised value.

THE FEDERAL HOME LOAN BANK SYSTEM.—Under the Federal Home Loan Bank Act of 1932, 11 Federal Home Loan banks have been established. Their stock is wholly owned by member institutions, chiefly savings and loan associations. The last government stock was repaid in 1951. The **locations of the banks** and their territories are as follows:

Boston	Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and Connecticut
New York	New Jersey, New York, Puerto Rico and the Virgin Islands
Pittsburgh	Delaware, West Virginia and Pennsylvania
Greensboro	Alabama, Georgia, Florida, North Carolina, South Carolina, Virginia, Maryland and the District of Columbia
Cincinnati	Kentucky, Ohio and Tennessee
Indianapolis	Indiana and Michigan
Chicago	Illinois and Wisconsin
Des Moines	Minnesota, Missouri, North Dakota, South Dakota and Iowa
Little Rock	Louisiana, Arkansas, Mississippi, New Mexico and Texas
Topeka	Colorado, Kansas, Nebraska and Oklahoma
San Francisco	Idaho, Montana, Oregon, Utah, Washington, Wyoming, Alaska, Arizona, California, Nevada and Hawaii.

The Federal Home Loan banks make available to member savings and loan associations short- or long-term advances, generally on the security of approved home mortgage collateral. They provide not only funds in emergencies, but also additional lending power to associations for expanding their operations when local demands for mortgage loans increase substantially. They are, in effect, rediscount institutions, and do not deal directly with individual borrowers.

The district Federal Home Loan banks supplement their capital with deposits of surplus funds of their member institutions and funds borrowed through the sale of their bonds. Home Loan bank bonds are joint and several obligations of the banks. They are not obligations of the United States and are not guaranteed by the government.

From their inception to December 31, 1951, the 12 Federal Home Loan banks had made advances aggregating $4,040,445,393, of which $3,234,508,627 has been repaid, leaving a balance of $805,936,767 outstanding.

THE FEDERAL SAVINGS AND LOAN INSURANCE CORPORATION.—This Corporation was created under Title IV of the National Housing Act of 1934 to insure investors' accounts in Federal Savings and Loan Associations or other institutions of the savings and loan type that apply and are accepted for insurance, up to $10,000 for each account. Its activities parallel those of the Federal Deposit Insurance Corporation.

The capital stock of the F.S.L.I.C., amounting to $100,000,000, is now held by the United States Treasury. The Insurance Corporation has authority to issue obligations in case the need should arise. On December 31, 1951 there were 3,020 insured associations with combined assets of $16,204,096,000.

THE HOME OWNERS' LOAN CORPORATION.—The H.O.L.C. was established as an emergency agency during the depression to finance the mortgages of distressed urban home owners and to aid banks and other lending institutions holding frozen mortgages. During 1933–1936, its legal lending period, H.O.L.C. refunded more than a million mortgages. Since then its chief function has been liquidation

of its assets, including collection of its loans and the sale of houses it has been forced to acquire by foreclosure. By March 31, 1951 all of the Corporation's holdings of mortgages and foreclosed properties, which had originally totalled $3,500,000,000, had either been liquidated or sold and delivered. All government capital invested in the Home Owners' Loan Corporation was repaid to the U. S. Treasury in December, 1950.

MORTGAGE INVESTMENT COMPANIES.—Two companies—the RFC Mortgage Company and the Federal National Mortgage Association—were established during the 1930's to assist in the government's home financing program.

The RFC Mortgage Company.—This company was organized in 1935, under the laws of the State of Maryland, to help re-establish a normal market for real estate mortgages. It was abolished by Congress in June, 1947 and all its assets and liabilities were transferred to the Reconstruction Finance Corporation for liquidation.

Federal National Mortgage Association.—This mortgage association was organized in 1938 under Title III of the National Housing Act to help provide a market for first mortgages, insured by F.H.A. under provisions of Title II of the National Housing Act, upon individual houses and rental housing projects. The Association is authorized to purchase (up to a total at any one time of $2,750,000,000) mortgages either guaranteed after April 30, 1948 by the Veterans' Administration in accordance with Sections 501 (home loans), 502 (farm loans), or 505(a) (100% guaranteed second mortgages) of the Servicemen's Readjustment Act of 1944 or insured by the Federal Housing Administration after April 30, 1948 under Titles II, VI, and VIII, and Section 8 of Title I of the National Housing Act. This Association, which is popularly known as "Fannie Mae," functions through a principal office in Washington, nine field offices, and one special sales office for handling sales of mortgages from its portfolio to institutional and other investors.

FINANCING OF PUBLIC HOUSING.—The **Public Housing Administration** was made one of the units under the Housing and Home Finance Agency by Reorganization Plan No. 3 of 1947. It has absorbed the following agencies:

The United States Housing Authority.
The Division of Defense Housing of the Federal Works Agency.
The Division of Mutual Ownership of the Federal Works Agency.
The defense housing program of the Public Buildings Administration.
Housing of the War and Navy Departments (except projects on military and naval reservations).
Nonfarm housing of the Farm Security Administration.
Defense Homes Corporation.

The nucleus of public housing in the United States has been the low-rent program of the **United States Housing Authority,** established under the United States Housing Act of 1937. Under this Act, subsidies and financing are assured local public housing bodies to build and operate large-scale housing projects for families in the lowest income groups. Actual management of the projects remains within the local bodies.

The Housing Act of 1949 authorized federal financial assistance to local housing authorities for the construction and operation of approximately 810,000 low-rent and public housing dwelling units through loan

and annual contributions contracts with such local housing authorities. The annual contributions are designed to keep the rents within the means of low-income families. The securities issued by the local authorities for the purpose of constructing such units are in effect guaranteed by the federal government and interest payments on them are exempt from federal income taxes.

Loans to Veterans

GUARANTEED LOANS UNDER THE SERVICEMEN'S READJUSTMENT ACT.—The Servicemen's Readjustment Act of 1944, the so-called G.I. Bill of Rights, authorizes the Veterans Administration to guaranty or insure loans to veterans granted by financial institutions. The guaranty or insurance consists of an agreement between the lender and the Veterans Administration that, in the event a veteran fails to pay his loan, the government will pay the guaranteed portion. Guaranteed loans to veterans are not a gift. They must be repaid. If the government pays over the guaranteed part of the loan to the lender, the veteran remains obligated to the government for that part of the loan.

Eligibility for Loans.—Each veteran who was in active military or naval service on or after September 16, 1940, and prior to the end of World War II, who was discharged from such service under conditions other than dishonorable, and who served at least 90 days or was discharged for disability incurred in the line of duty may borrow money under the Servicemen's Readjustment Act. A person who, while a citizen of the United States, was in the active service of any government allied with the United States in World War II is similarly eligible, provided he has not applied for and received similar benefits from such other government. Persons on terminal leave, or in hospitals pending discharge, are eligible.

Limit of Loan Guaranty.—The guaranty is 50% of the loan, but the total amount cannot exceed $4,000 for real estate loans and $2,000 for non-real estate loans for each veteran. The guaranty does not have to be used for a single loan, but can be divided over several loans. The amount of the guaranty available to a veteran can be determined by adding to the used real estate guaranty twice the non-real estate guaranty used and subtracting the total from $4,000. The sum remaining is the amount of real estate guaranty still available, and the non-real estate guaranty still available is half of this sum.

When indebtedness is repaid by a veteran, his guaranty privilege is **not restored** to its original amount. The veteran can use his guaranty rights only once. The right to obtain guaranty of loans is for ten years following the officially declared termination of World War II.

Purposes of Loans.—A veteran may secure a guaranteed loan for the following major purposes:

1. **Home loans.** To buy a home; build a home; repair, alter, or improve a home.
2. **Farm loans.** To buy a farm, livestock, equipment, supplies or working capital; to construct a farmhouse or other buildings on a farm; to repair, alter or improve farmhouse or outbuildings; to improve farm land or equipment; to conduct farming operations;

to purchase stock in a cooperative association where the purchase of such stock is required by federal law in connection with obtaining a farm loan.

3. **Business loans.** To buy a business; to buy a building or land for business purposes; to buy business supplies and inventory; to buy machinery, tools, and equipment for operating a business; to construct, repair or improve a business building or personal property; to obtain working capital for a business. Business includes a profession.

Prohibited Purposes.—Loans to buy an automobile for pleasure purposes only, or to purchase household furniture, may not be guaranteed. Guaranteed loans may not be used to pay off a debt in good standing, but may be used under specified conditions to pay off a debt that is past due.

Terms of Veterans' Loans.—The chief terms specified in the loan are:

1. **Maturity.** Payments for guaranteed home or business real estate loans, within 30 years; a farm real estate loan within 40 years, and a non-real estate loan within 10 years.
2. **Interest.** The interest rate on a guaranteed loan is 4%, but may be raised to a maximum of 4½%. The Veterans' Administration, in addition to guaranteeing the loan, will pay to the lender for credit on the loan an amount equal to 4% of the amount of guaranty used. This is a gift which is not to be repaid by the veteran.
3. **Commissions or Other Charges.** Commissions, brokerage fees or other charges for obtaining a guaranty cannot legally be charged a veteran. However, fees usually paid by a borrower, such as appraisal, title search, recording fees, etc., may be charged.

Veteran loans may be either guaranteed or insured. Any loan eligible for guaranty, when made by a supervised lender, can also be insured by the Veterans' Administration. It makes considerable difference to the veteran whether the lender procures insurance or a guaranty on his loan. Under the insurance provisions, only 15% of the obligation is charged against the total guaranty privilege, whereas the charge may be as much as 50% of the obligation if guaranteed. The result is that the use of insurance can largely increase the veteran's borrowing rights under the law.

Under an insurance agreement, the Veterans' Administrator agrees to reimburse the lending institution for losses incurred on insured loans up to 15% of the aggregate of such loans made or purchased by it. The rate on a non-real estate insured loan may be as high as 5.70%, simple interest. The 4% gift payment on veterans' loans by the Administrator is calculated in the same manner regardless of whether a loss is guaranteed or insured; that is, the gratuity will be 4% of the amount of guaranty or insurance credit employed in a particular loan.

Secondary Loans may be protected under the provisions of the Act. When another federal agency has made, guaranteed, or insured a loan for an eligible purpose but the veteran needs the second loan to complete the purchase, the second loan may be fully guaranteed by the Veterans' Administration if:

1. The amount involved is not more than the veteran's available guaranty; and
2. The loan is not more than 20% of the purchase price or cost.

This authority is of particular importance in the purchase of homes, as the second loan may take the place of the down-payment otherwise required under the F.H.A. mortgage plan. Second loans call for caution, however, particularly in times of inflated real estate values, for in case of a subsequent drop in values a veteran may find himself with remaining obligations exceeding the resale value of his property.

HOME LOANS FOR VETERANS.—The G. I. Bill offers a veteran two plans to help him buy a home:

Plan No. 1—Direct Loan Guaranty.—This plan provides an outright loan guaranty by the Veterans' Administration up to $4,000 if a veteran has a job or income indicating he can repay the loan, and if the price paid by the veteran does not exceed the reasonable value of the property. Before the loan is made, the house must be appraised by an appraiser approved by the Veterans' Administration. Such loans are repaid over 30 years or less in monthly instalments including interest and principal. Payments on taxes and hazard insurance can also be made monthly. Both plans are subject to emergency credit controls.

Plan No. 2—Insured Loan and Guaranteed Second Lien.—Under this plan the home loan is split into two loans, although they may be repaid as one. One part is insured by the Federal Housing Administration; the other, a second lien, is guaranteed by the Veterans' Administration, provided it does not exceed 20% of the purchase price. On a new home priced at $6,000 or less, the lending institution can make an F.H.A. insured loan up to 90%, as with an ordinary F.H.A. loan. Then the veteran can borrow up to $600 secured by a second lien for the down payment to make up the total of $6,000.

Title I loan regulations of the Federal Housing Administration have been amended to permit financial institutions to offer more liberal terms to veterans. Where structures to be remodeled are located in areas designated by the President as War Housing Areas, and where remodeling will make additional living accommodations available to veterans, a new type of loan may be made in amounts up to $10,000, with maturities not to exceed 7 years and 32 days. This type is now known as Title I, Class 1(b) loan, while the regular $2,500 remodeling loan is known as Title I, Class 1(a).

FARM LOANS FOR VETERANS.—Farm loans can be made either with an outright guaranty under Section 502 of the Servicemen's Readjustment Act or in conjunction with the insured credit of another agricultural lending institution under Section 505 of the G. I. Bill of Rights. Conditions of guaranteed farm loans are:

1. That the proceeds of such loan will be used in connection with bona fide farm operations;
2. That the property will be useful in and reasonably necessary for efficiently conducting such operations;
3. That the veteran is reasonably qualified for agricultural work; and
4. That the purchase price does not exceed the reasonable value of such property as determined by an appraiser designated by the Veterans' Administrator.

If a veteran uses a Federal Land bank loan to purchase a farm but needs additional money, he can secure an advance guaranteed by the Veterans' Administration from a lending institution or individual on a

second mortgage. The guaranty on such an additional loan may not be for more than $4,000, and in no event in excess of 20% of the purchase price.

BUSINESS LOANS TO VETERANS.—Business loans are automatically guaranteed by the Veterans' Administration if made in compliance with Title III of the Servicemen's Readjustment Act of 1944. They must fulfill the following provisions:

1. The proceeds of such loan must be used in connection with bona fide pursuit of gainful occupation by the veteran;
2. The property must be useful in and must be reasonably necessary for the efficient and successful pursuit of such business or occupation;
3. The veteran must be reasonably qualified for such business or occupation;
4. The purchase price paid must not exceed the reasonable value of the property, as determined by an appraiser designated by the Administrator.

While guaranteed loans to veterans are usually made by private financial institutions, the Reconstruction Finance Corporation also may make such loans. R.F.C.'s own activity in granting veterans loans is part of its small business loan program.

Agencies to Finance Foreign Trade

THE EXPORT-IMPORT BANK.—The Export-Import Bank of Washington was organized in 1934 as a banking corporation under the laws of the District of Columbia. It was made an independent agency of government by the Export-Import Bank Act of 1945. The purpose of the Export-Import Bank is to aid in "the financing and facilitating of exports and imports and the exchange of commodities between the United States or any of its territories or insular possessions and any foreign country or the agencies or nationals thereof." It can make almost any type of loan, without limitation as to amount to any one borrower.

The authorized capital of the Bank was increased to $1,000,000,000 in 1945. Its stock is owned by the Secretary of the Treasury. The Bank borrows from the Secretary of the Treasury up to three and one-half times its authorized capital stock.

The **management of the Bank** consists of a Board of Directors made up of the Secretary of State and four full-time directors appointed by the President, one of whom is designated as the chairman. Not more than three members of the board may be members of one political party. Participation by other government agencies in shaping the policies of the Bank is provided through an Advisory Board consisting of the Chairman of the Bank, the Secretaries of State, Treasury and Commerce, and the Chairman of the Board of Governors of the Federal Reserve System. The National Advisory Council created by the Bretton Woods Agreements Act has the same membership as the Advisory Board of the Export-Import Bank, except that the former's Chairman is the Secretary of the Treasury. The National Advisory Council is responsible for coordinating the policies of the Export-Import Bank with those of the United States representatives on the Bretton Woods organizations

and of other government agencies which have a hand in making foreign loans.

The Export-Import Bank does not compete with private lending institutions. Rather, it seeks to aid and encourage private lending to foster foreign trade and investment and to extend only credits which private banks are unwilling to advance.

Lending Operations.—The lending operations of the Bank are guided by the following basic principles:

1. Only such loans and guaranties are made which serve to promote the export and import trade of the United States.
2. Loans are generally made only for specific purposes. The Bank does not make lump sum advances for use as the borrower sees fit.
3. Loans must offer reasonable assurance of repayment.
4. As a general rule, the Bank extends credit only to finance purchases of materials and equipment produced or manufactured in the United States and the technical services of American firms and individuals, as distinguished from outlays for materials and labor in the borrowing country or purchases in third countries.

The facilities of the Export-Import Bank are open to United States exporters of goods or of services, to United States importers, to foreign governments and their agencies and to foreign firms and individuals. The Johnson Act prohibition of loans to foreign governments in default on obligations due the government of the United States does not apply to Export-Import Bank credits.

The Bank finances exports in two ways. It grants (1) credits to American exporters to facilitate the sale abroad of specific materials or equipment; and (2) lines of credit in favor of foreign governments, banks or business enterprises, available during a stipulated period, for purchases of materials, equipment and services in the United States. Credits extended to individual United States exporters by the Bank usually require the guaranty of a foreign bank or government.

Advance Commitments.—Under certain circumstances, United States exporters who desire to bid for foreign business may apply to the Export-Import Bank for a commitment to grant a credit in advance of the submission of bids. When more than one United States exporter is interested in obtaining a given order, the Bank will offer similar terms to all qualified bidders in order that the successful bidder, if a United States exporter, will be determined solely on the basis of price, quality and proposed delivery schedule, rather than the credit terms offered by the Bank. The Bank does not look with favor upon requests for assistance from exporters who have not consulted it prior to making credit engagements with foreign buyers.

Nonrecourse Financing.—The percentage of the credit risk involved in an export or import transaction which the Export-Import Bank will assume without recourse depends upon the circumstances. Nonrecourse financing of exports by the Bank almost invariably requires the endorsement or unconditional guaranty of a foreign bank or government.

Conditions Governing Loans.—The chief conditions of Export-Import Bank loans are:

1. **Maturity.** The Bank has wide leeway in setting maturities for its loans. Financing of raw materials or consumer goods exports, if under-

taken at all, usually is limited to relatively short-term credits, but repayment of loans for the export of durable equipment may be extended over periods of 5 to 30 years. Repayment in such instances is usually by instalments.

2. Interest rates. Interest rates are uniform for each type of credit to all borrowers. The Bank is obliged to charge interest sufficient to cover the cost of its own funds to defray administrative expenses and to accumulate a reasonable reserve against loss. It is also bound to consider market rates in order to avoid competition with private sources of credit. Rates on various major types of loans have ranged from 2½ to 6%.

Inter-Governmental Credit Agencies

BRETTON WOODS AGREEMENTS.—The United Nations Monetary and Financial Conference meeting at Bretton Woods, New Hampshire, in July, 1944, adopted agreements for the establishment of an International Monetary Fund and an International Bank for Reconstruction and Development. Following ratification by most participating nations, the Bretton Woods Agreements became effective January 1, 1946. Legal authority for United States participation is provided by the Bretton Woods Agreements Act of 1946. An evaluation of the significance of the Bretton Woods Agreements to foreign exchange markets is not attempted here, since it relates more particularly to the discussion of International Finance.

THE INTERNATIONAL MONETARY FUND.—The International Monetary Fund is designed to promote stability of foreign exchange rates for participating nations. It provides for the establishment by member nations of initial parities for their currencies, which they agree not to change thereafter except after consultation with the Fund. Member nations can secure foreign exchange required from the Fund up to rigidly specified limits, under safeguards. They agree to abandon foreign exchange restrictions except for capital movements and controls over currencies declared scarce by the Fund, following an initial transition period.

The International Monetary Fund is intended not as a panacea, but rather as a temporary shock-absorber. No nation whose international payments are permanently unbalanced will be able to rely on the Fund to make up its deficits indefinitely. Other measures are then needed to bring international payments into equilibrium. But the Fund is intended to cushion members against temporary dislocations in their international transactions.

The Fund initially was set at $8,800,000,000, to be subscribed by members in accordance with a fixed schedule of quotas. Payment was required in gold of a minimum of 25% of its quota or 10% of its net official holdings of gold and U. S. dollars on a specified date, whichever was smaller. Original quotas for participating countries were as follows (in millions of U. S. dollars):

Australia	200	Brazil	150
Belgium	225	Canada	300
Bolivia	10	Chile	50

China	550
Colombia	50
Costa Rica	5
Cuba	50
Czechoslovakia	125
Denmark	68
Dominican Republic	5
Ecuador	5
Egypt	45
El Salvador	2.5
Ethiopia	6
France	450
Greece	40
Guatemala	5
Haiti	5
Honduras	2.5
Iceland	1
India	400
Iran	25
Iraq	8
Liberia	.5
Luxembourg	10
Mexico	90
Netherlands	275
New Zealand	50
Nicaragua	2
Norway	50
Panama	.5
Paraguay	2
Peru	25
Philippine Commonwealth	15
Poland	125
Union of South Africa	100
Union of Soviet Socialist Republics	1,200
United Kingdom	1,300
United States	2,750
Uruguay	15
Venezuela	15
Yugoslavia	60

Changes were made in the quotas of several countries following organization of the Fund, some additional countries were invited to join, and Soviet Russia had not adhered by 1952.

Each member in good standing is permitted during any twelve months period to purchase from the Fund, in exchange for its own currency, foreign currencies of a total value not to exceed one-fourth of its original quota. The Agreement limits the total amount of any one member's currency which the Fund may possess at one time to 200% of its quota. This provision is designed to keep any nation from relying on the facilities of the Fund to cover chronic deficits in international payments. Both limitations may be waived by the Fund under exceptional circumstances.

The Fund imposes uniform service charges on all sales of gold and currency, varying between ½ and 1%. The rate for 1952 has been set at ½%. In addition, a graduated charge is made on the amount of any member's currency which the Fund holds in excess of that member's national quota.

Voting Procedure.—The voting strength of the member countries is closely related to the size of their quota. Each member is entitled to one vote for every $100,000 of its quota, in addition to 250 initial votes which all members receive regardless of the size of their national subscriptions. Thus, the United States has 27,250 votes.

Special voting procedures prevail when the Fund is to vote on (1) a request made by a member to purchase foreign exchange beyond the limits provided in the agreement, or (2) a proposal to limit the member's access to the Fund or to exclude it from such access.

Management.—Powers of the Fund are vested in a Board of Governors consisting of one Governor and one alternate appointed by each member. Members may designate Governors by any method they choose and may reappoint or relieve them at will, but the basic term of appointment is five years. Governors and alternates are to serve without compensation, but receive reasonable travel expenses when required to attend meetings, which must be held at least annually.

Supervision of operations is provided by a Board of Executive Directors, of whom there are at the present time fourteen. Five of this number are to be appointed by the five members having the largest national quotas (the United States, Great Britain, China, France, and India). Of the remaining nine, two are to be elected by the Latin American Republics and five by other members jointly. The Executive Directors are to be in continuous session at the headquarters of the Fund in Washington, D. C. Their decisions are by majority vote, with each director casting all the votes to which the members which appointed him are entitled. Appointive directors serve at the discretion of the members appointing them; elective directors are to serve two year terms, re-election permitted.

Day by day management of the Fund lies in the hands of a Managing Director selected by the Executive Directorate. He may not be a Governor or Director himself. The Managing Director functions as Chairman of the Executive Directorate, but is not entitled to cast a vote except in case of a tie.

THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT.—The function of the International Bank for Reconstruction and Development is to foster international investment through private channels, particularly for the reconstruction of devastated areas and the development of economically backward regions. The Bank makes loans from its paid-in capital and borrowed funds, and may guarantee obligations of foreign governments and enterprises for sale to private investors.

The stockholders of the International Bank are governments of member nations. No individual may own or acquire shares. The authorized capital consists of 100.000 shares of the par value of $100,000 or a total of $10,000,000,000. Of this total, 91% was allotted to the original members as follows (in millions of U. S. dollars):

Australia	200	Iran	24
Belgium	225	Iraq	6
Bolivia	7	Liberia	.5
Brazil	105	Luxembourg	10
Canada	325	Mexico	65
Chile	35	Netherlands	275
China	600	New Zealand	50
Colombia	35	Nicaragua	.8
Costa Rica	2	Norway	50
Cuba	35	Panama	.2
Czechoslovakia	125	Paraguay	.8
Denmark	68	Peru	17.5
Dominican Republic	2	Philippine Commonwealth	15
Ecuador	3.2	Poland	125
Egypt	40	Union of South Africa	100
El Salvador	1	Union of Soviet Socialist Republics	1,200
Ethiopia	3	United Kingdom	1,300
France	450	United States	3,175
Greece	25	Uruguay	10.5
Guatemala	2	Venezuela	10.5
Haiti	2	Yugoslavia	40
Honduras	1		
Iceland	1		
India	400	Total	9,100

As with the Monetary Fund, the quotas of some countries were changed following establishment of the Bank, additional nations became members, and, by 1952, Soviet Russia had not subscribed to the stock of the institution.

Only 20% of the par value of each share is paid in, the remaining 80% being subject to later call only as needed to make good on defaulted loans guaranteed by the Bank. The Bank may borrow through the sale of debentures, or may guarantee obligations of borrowers, up to the amount of its uncalled subscription. Thus, its obligations are secured both by the loans made and by the power to call on members for their unpaid subscriptions.

Management of the Bank.—The Bank is managed by a Board of Governors composed of one Governor and one alternate appointed by each member. The Board of Governors meets at least once a year. Each member is to have 250 votes on the basis of membership plus one additional vote for every share of the Bank's stock which it holds. Initially, this gives the United States 32,000 votes. Panama, on the other end of the scale, has 252 votes. The Bank may increase its capital.

Immediate supervision of the Bank's operations is in the hands of a paid Executive Directorate of fourteen members, similar to that of the International Fund. The Executive Directors select the President of the Bank, who also functions as Chairman of the Executive Directorate but has no vote except in the case of a tie.

The main office of the Bank is in Washington, D. C.

Two features of the administrative structure of the Bank have no parallel in the Fund. These are an Advisory Council, appointed by the Board of Governors, and Loan Committees appointed from time to time to consider specific applications for loans.

The Advisory Council is composed of seven or more representatives of banking, commercial, industrial, labor and agricultural interests of the members, and advises the Bank on matters of general policy. Its members are appointed for 2-year terms on the widest possible international basis. Loan Committees are composed of an expert appointed by the Governor who represents the country seeking the loan and one or more experts from the technical staff of the Bank.

Loan Policy.—Article I of the Articles of Agreement of the Bank defines the scope of its activities as follows:

1. To assist in the reconstruction and development of territories of members by facilitating the investment of capital for productive purposes, including the economies destroyed or disrupted by war, the reconversion of productive facilities to peacetime needs, and the encouragement of the development of productive facilities and resources in less developed countries.

2. To promote private foreign investment by means of guarantees or participation in loans and other investments made by private investors; and when private capital is not available on reasonable terms, to supplement private investment by providing, on suitable conditions, finance for productive purposes out of its own capital, funds raised by it and its other resources.

3. To promote the long-range balanced growth of international trade and the maintenance of equilibrium of balances of payments by encouraging international investment for the development of the productive re-

sources of members, thereby assisting in raising productivity, the standard of living and conditions of labor in their territories.

4. To arrange the loans made or guaranteed by it in relation to international loans through other channels so that the more useful and urgent projects, large and small alike, will be dealt with first.

5. To conduct its operations with due regard to the effect of international investment on business conditions in the territories of members and, in the immediate post-war years, to assist in bringing about a smooth transition from a wartime to a peacetime economy.

It will be noted that nonproductive loans are excluded from the list.

Article III of the Agreement further limits the conditions under which the Bank may make or guarantee loans in the following important respects:

1. Loans may be made or guaranteed only for specific projects examined and approved by responsible committees, and then only if the borrower appears likely to be able to meet his obligations.

2. In the case of private loans which the Bank is asked to guarantee, the Bank must satisfy itself not only that all the terms of the proposed loan are reasonable and appropriate, but also that the borrower would not be able to obtain the desired loan on reasonable terms without a guaranty from the Bank. If these conditions are met, the Bank must still charge a reasonable fee to compensate it for the risk of assuming a guaranty.

3. Where loans or guaranties are sought by local government or private enterprises in a member country, the national government of the member must also guarantee the loan.

INDEX

A

ACCEPTANCE,
  Of bill of exchange, 1079–1083
  Of time drafts, 647
ACCEPTANCE MARKET, 149–150
ACCEPTANCES,
  Banker's, 601–602, 713, 1089–1090
  Trade, 601, 1089
ACCOMMODATION PAPER, 601, 1058
ACCOMMODATION TRADES, Commodities, 1111
ACCOUNTANT'S CERTIFICATE, 241
ACCOUNTING,
  Business combinations, 856–864
  Estimates and surplus, 817
  Investment companies, 300–337
  Securities and Exchange Commission, requirements, 205–206, 225–226
  Stock dividend declaration, 793
  Uniform, Interstate Commerce Commission, 203
ACCOUNTS RECEIVABLE,
  As security, 466–467, 600
  Credit policies and, 702
  Financing, 723–724
  In balance sheet analysis, 229
ACCRUAL BASIS, In income statements, 219
"ACID TEST," 249
ACTS OF BANKRUPTCY, 956–958
ADMINISTRATOR, Estate, 614–615
AFFILIATED CORPORATIONS (See "Corporations")
AFTER-ACQUIRED PROPERTY CLAUSE, Mortgage bonds, 491–493
AGENCIES,
  Consumer credit, 604–606
  Corporate fiduciaries as, 609–634
  Government financing, 1243–1274
  Housing, 1260–1265
  Inter-governmental credit, 1270–1274
AGENTS,
  Bank collecting, 1089
  Coupon-paying, 633
  Fiscal, 633, 806
  Stock subscription, 634
  Transfer, 633
AGREEMENT,
  Deposit, reorganization, 949
  Lease, in combinations, 864–868
  Protective, reorganization, 949
AGRICULTURE, Agencies to finance, 1251–1260
AMERICAN BANKERS ASSOCIATION, 555
AMORTIZATION (See also "Depreciation")
  Of bonded debt, 515–521
  Of bonds, 515, 1212
  Of deferred charges, 233
  Of emergency facilities, 769–770
  Of loans, 1208
  Sinking fund, calculations, 1195–1201
ANNUAL REPORTS (See "Reports")
ANNUITIES,
  Computations, 1188–1210
  Deferred group, 989, 994–996, 1019
  Deposit-administration group, 989–990, 996, 1019
  Tables, use of, 1189–1210
ANTICIPATION, 1162–1166
ANTI-FRAUD LAWS, 61
APPRECIATION, Surplus from unrealized, 812
APPROPRIATIONS,
  For capital expenditures, 755–761
  Of surplus, 818
APPROPRIATIONS COMMITTEE, 758–759
ARBITRAGE, In securities, 135–137, 650
ARRANGEMENTS, Bankruptcy Act, 1938, 929
ARREARAGES, Preferred dividend, 904–909
ASSETS,
  Accounting, business combinations, 859
  Capital, surplus, 748
  Classification of, 228
  Definition, 227
  Fixed capital (See "Fixed Capital")
  Intangible,
    Fixed, 742
    Valuation of, 233, 861
    Write-off in recapitalization, 898
  Purchase of, combinations, 837–847
  Quick, ratio, 252
  Ratios, in statement analysis, 252
  Tangible, fixed, valuation of, 742–743
  Wasting, 774–777
  Writing down, recapitalization, 899
ASSIGNEE, Corporate fiduciary as, 616
ASSIGNMENTS, In debt readjustment, 915–916
AUCTION BASIS, Securities market, 66

B

BALANCE OF PAYMENTS, 637–638
BALANCE SHEET,
  Analysis of, 227–257
  Brokerage house, 110
  Credit analysis, use in, 217
  Deficit on, 825
  Definition, 227
  Form of, 228
  Projections, 694–696
BANK ACCOUNT, 579–590
  Analysis, 587
  Corporate, 580–581
  Joint, 580, 582
  Opening, 579
  Partnership, 580
  Personal, 579
  Reconciliation of, 585–589
  Service charges, 587

BANK ACCOUNT—*Continued*
Special, dividend, 805–806
BANK CHECKS (See "Checks")
BANK CREDIT, Monetary aspects, 538
BANK DEPOSITS, 573–579, 582–583
As money, 530
Creation of, by banks, 543
Federal Deposit Insurance Corporation, 551, 575–578
In credit management, 542–543
Savings, 573
Surplus cash and, 712–713
Trends in, 559
Turnover of, 160–161
War loan, 574
BANK DIRECTORS, 572–573
BANK DISCOUNT, 1166–1172
BANK FAILURES, 558
BANK LOANS (See "Banks")
BANK OF CANADA, 544
BANK OF ENGLAND, 167–171
Weekly statement, 169
BANK OF FRANCE, 171, 544
BANKER'S ACCEPTANCES, 601–602, 713, 1089–1090
BANKING, 527–568 (See also "Investment Banking")
American Bankers Association, 555
Branch, 556, 558
Chain, 556
Commercial, procedure, 571–606
Competition, 561
Government regulation of, 552–553, 572–573
Group, 556
Industrial, 605
International, 635–666
Investment (See "Investment Banking")
Legislation, 545–546, 552–553, 575, 576
Procedure, 569–606
BANKING ACTS, 545–546
Of 1933, 552, 575, 576
Of 1935, 552
BANKING STATISTICS, Interpretation of, 151–161
BANKING SYSTEMS (See also "Banking," "Banks," "Money")
Credit management, 562
Federal Reserve, 546–551
Foreign, 167–171, 544
United States, 545–558
BANKRUPTCY, 952–979
Acts of, 931, 956–958
Agricultural, compositions, 978
Courts, 953, 972–974
Laws, federal and state, 953
Wage earners, 977–978
BANKRUPTCY ACT OF 1938, 931
BANKS,
As fiduciaries, 609, 631–632
Capital requirements, 572
Central, 543
Charter, 571–572
Checking accounts, 579–590
Collection responsibilities, 1089
Commercial,
And new financing, 14
Loanable funds, 161
Role in banking system, 542
BANKS—*Continued*
Commercial—*Continued*
Savings departments of, 309, 317
Credit department, 602, 603
Deposits (See "Bank Deposits")
Directors, requirements, 572–573
Earnings, 559
Examinations of, 573
Export-Import Bank, 654, 1268–1270
Federal Home Loan Bank System, 321, 1260, 1262–1263
Federal Intermediate Credit Banks, 182, 1252, 1257
Federal Land Banks, 1252, 1254
Federal Reserve System (See "Federal Reserve System")
Foreign, agencies of, 654
Foreign branches of American, 652–653
Foreign department, 650–652
Industrial, 605
International Bank for Reconstruction and Development, 534, 654–655, 1272–1274
International Monetary Fund, 534, 654–655, 1270–1272
Investment department, 593
Investments of, 559, 590–595
Loans, 595–604, 1166
Trends, 559
Organization procedure, 571–573
Personal loan department, 605
Portfolio policy, 593
Savings, 309–318
Services,
Collection, 574, 588–590
Payroll, 574, 583
Stocks, 295–296
BANKS FOR COOPERATIVES, 1252, 1255, 1256–1257
"BEATING THE GUN," 40
BENEFITS, EMPLOYEE, 983–1037
BIDDING, COMPETITIVE, Securities, 15–16
BILLS, Treasury, 182
BILLS OF EXCHANGE, 1043–1044, 1079–1086 (See also "Sight Drafts")
Inland, 1044
BILLS OF LADING, As collateral, 599, 724
BLUE SKY LAWS, 58–62, 353
BOARD OF DIRECTORS (See "Directors")
BOND BROKERS, 73
BOND ISSUES, Public regulation, 460
BOND MARKET, And Treasury policies, 195
BOND PRICES, From yield, 1211–1219
BOND TABLES, Use of, 1213–1223
BOND YIELD, Calculations, 1211–1222
BONDHOLDERS, Dissenting, in readjustments, 911
BONDS, 468–524 (See also "Securities," "Security Issues")
Amortization, 515, 1212
Assumed, 514
Collateral trust, 494–498
Commissions and transfer taxes, 114
Convertible, 505–511
Coupon, 468–469
Debenture, 504–505
Denomination, 468
Dividends, 795
Divisional, 494

BONDS—*Continued*
Equipment, 499–501
Financing, 457–525
Government, 181, 474, 515
Depositary, 183
Prices and market conditions, 194
Savings, 182, 184
Guaranteed, 501–504
Income, 511–513
Indentures, 473–486
Interest calculations, 1211–1219
Joint, 513–514
Liberty, 197
Listed, Trading in, 80
Mortgage, 486–494
Municipal, 297–301, 474
Dillon's Estoppel Clause, 475
Negotiable, 1088
Participating, 514
Pricing of issues, 26
Redemption of, 523–524
Refunding of, 521–523
Registered, 469–470
Retirement, 515–520
Revenue, 300
Sale, profit or loss on, 1222
Serial, 519–521
Sinking funds, 515–519
Calculations, 1195–1201
Special assessment, 299–300
State, 297–299
Tables, use of, 1213–1223
Tax-free covenants, 471
Terminal, 494
Trading, on Exchange, 112–113
Trustee, 475–479, 632
Unlisted, market for, 118
Valuation, computations, 1210–1223
Voting, 514
With warrants, 511
BONUS STOCK, 451
BORROWING, Corporate (See "Loans")
BRANCH BANKING, 556, 558
BREAK-EVEN CHART, 692
BRETTON WOODS AGREEMENTS, 1270
BROKERAGE HOUSES, 102–112
BROKERS,
Balance sheet, 110
Bond, 73
Borrowing, restrictions on, 112
Commissions on stocks, 82–83
Financing customers' accounts, 109–112
Floor, 1117
Foreign exchange, 640
Funds, sources of, 110–111
Hypothecation Agreement, 111
Interest charges, 108–109
Loans, 147–149, 713
Put and call, 93
Relations to customer, 107–108
Security, 68
Service charge, 109
"Two-dollar," 76
BROKERS' LOANS, 147–149, 713
BUCKETING, 1111
BUDGETS,
Cash, 676–687
Financial planning and, 671–687
Fixed capital, 753–765
BUDGETS—*Continued*
Flexible, 674
Government, 179
Long-term forecasts and, 690
Procedure, 672–673
Types of, 673–674
Working capital, 727–731
BUSINESS, NEW,
Promotion, 347–366
Securities and, 364–366
Sources of capital, 355–357
BUSINESS COMBINATIONS (See "Combinations, Business")
BUSINESS CYCLES, And money market, 165
BUSINESS EXPANSION (See "Combinations, Business," "Expansion")
BUSINESS FORECASTING (See "Budgets")
BUSINESS ORGANIZATION, 367–403
BUSINESS TRUSTS, 375–376
BY-LAWS, Corporate, 385–391

C

CABLE TRANSFERS, Of exchange, 645
"CALL," 93
"CALL COTTON," 1138–1139
CAPITAL (See also "Capital Stock," "Fixed Capital," "Working Capital")
Bank, requirements, 572
Circulating, 709
Deficits, 824–826
Demand for, 3–4
For small business, 5–6
Impairment, prohibition of, 783–784
Investment, balanced, 746–747
Railroad, 280–281
Sources of, 781–782
New business and, 355–357
Supply of, 4–7
Surplus as a source of, 816
CAPITAL BUDGET, 753–765
CAPITAL EXPENDITURES,
Cash planning and, 762
Control of, 743, 760
Planning, 749–751
CAPITAL STOCK (See also "Recapitalizations," "Security Issues")
Reduction,
In recapitalization, 897–900
Surplus due to, 810
CAPITAL STRUCTURE, Changes, 893
CAPITALIZATION, Defined, 252
CAPITALIZATION RATIOS, In statement analysis, 252–253
CARTELS, 884–886
CASH, Administration as working capital, 714
Discounts, 714
Dividends, 791
Fixed capital expenditures and, 762–763
In balance sheet, 229
Surplus, investment of, 712–713
CASH BUDGET, 676–687
CENTRAL BANK FOR COOPERATIVES, 1255, 1256
CENTRAL BANKS, 543
CERTIFICATE OF DEPOSIT, 1086
CERTIFICATE OF INDEBTEDNESS, Government, 181

CERTIFICATES, Scrip, 454
Stock, 408–409
CHAIN DISCOUNTS, 1172–1174
CHAIN ORGANIZATIONS, Voluntary, 888–889
CHAPTER X, Reorganization under, 931–938
CHARGES TO SURPLUS (See "Surplus")
CHARTER,
Bank, 571–572
Corporate, 383–385
In business combination, 840–843
CHARTS, BREAK-EVEN, 692; Stock market, 98–99
CHECKING ACCOUNTS, 579–590
CHECKS, 1044, 1086–1088
Certified, 583, 585, 1087
Dividend, 802–806
Travelers', 666
CHICAGO BOARD OF TRADE (See "Commodity Trading")
CIRCULATING CAPITAL, 709
CLEARANCE, Par, bank, 550, 588
CLEARING HOUSE, Commodity exchange, 1130–1133
COINAGE, 538–540
COINSURANCE, 749
COLLATERAL (See also "Loans")
Negotiable instruments, 1050–1051
COLLATERAL TRUST, 494–498
COLLECTION RATIO, In statement analysis, 249
COLLECTIONS,
Bank's responsibility in, 1089
Foreign trade, 651–652, 656–658
From customers, estimating, 683
Par, banks, 550, 588
Service, of banks, 574, 588–590
COLLECTIVE BARGAINING, Profit-sharing plans and, 1026–1027
COMBINATIONS, BUSINESS, 829–889
By cartels, 884–886
By community of interest, 887–888
By consolidation, 847–885
By holding companies, 868–884
By lease, 864–868
By merger, 852–855
By purchase of assets, 837–847
By trade associations, 886–887
By voluntary chains, 889
COMMERCIAL BANKS (See "Banks")
COMMERCIAL CREDIT,
Credit reports, 212–215
Financial statements for, 242–249
Foreign, 651
COMMERCIAL LOANS (See "Loans")
COMMERCIAL PAPER, In financing, 465–466
COMMERCIAL PAPER MARKET, 150–151
COMMISSION HOUSES, 102–112, 1117
COMMISSION RATES, Commodity exchanges and, 1124–1125
COMMISSIONS,
Brokerage, on stocks, 82–83
On bond transactions, 114
COMMITTEES,
Appropriation, 758–759
Board of Directors, 706
Commodity exchange, 1106–1107
Creditors', 916–918, 963
Pension plan, 1020
Profit-sharing administrative, 1036
COMMITTEES—*Continued*
Protective, 946–952
COMMODITIES, Spot markets, 1142–1145
COMMODITY CREDIT CORPORATION, 1252, 1259
COMMODITY EXCHANGE ACT OF 1936, 1109–1116
COMMODITY EXCHANGES, 1099–1142
COMMODITY TRADING, 1097–1145
Trade terms, 1143–1145
COMMON STOCK, 441
Recapitalizations, 894–902
COMMUNITY OF INTEREST, 887–888
COMPANIES, Joint stock, 376–377
COMPENSATION,
Executives, 403
Officers, 225
Promoters, 351–352
Underwriters, 26
COMPETITIVE BIDDING, Securities and, 15–16
COMPOSITIONS, 913–915; Agricultural, 978
COMPOUND INTEREST (See "Interest")
CONSIDERATION, Negotiable instruments, 1057–1058
CONSOLIDATED FINANCIAL STATEMENTS, 237–241
CONSOLIDATIONS, 847–852, 853–855
Surplus in, 813
CONSUMER CREDIT AGENCIES, 604–606
CONTINGENCIES, Reserves for, 702, 767, 819–820
CONTINGENT LIABILITIES, 235
"CONTRACT" MARKETS, Commodities, 1110
CONTRACTS,
For purchase of corporate assets, 843–845
Futures, 1102–1105, 1119
Liquidation of, 1125–1130
Pre-incorporation, 353–355
Purchase group, 23–25
Trustees', in corporate promotion, 354
Underwriting, 17–21
CONVERTIBLE STOCK, 440
COOPERATIVES, 377–379
CORNERS, 90–91
CORPORATE BY-LAWS, 385–391
CORPORATE CHARTER, 383–385, 840–843
CORPORATE COMBINATIONS (See "Combinations")
CORPORATE DEBT (See "Debt")
CORPORATE DIRECTORS (See "Directors")
CORPORATE DISSOLUTION, 840, 923–925
CORPORATE FIDUCIARIES (See "Trusts")
CORPORATE NAME, 383
CORPORATE OFFICERS, 400–403
Compensation of, 225
Loans to, 713
CORPORATE ORGANIZATION, 379–403
CORPORATE REORGANIZATION, 929–952, 1248
CORPORATE REPORTS (See "Financial Reports," "Financial Statements")
CORPORATE STOCK, 405–455
CORPORATE STRUCTURE, Changes, holding companies, 919–921
CORPORATE TRUST (See "Trusts")
CORPORATE TRUSTEE, 475–479
CORPORATIONS, 379–403
Affiliated,
Indebtedness of, 231
Investment in, 230–231
Agency functions of fiduciaries, 633–634

CORPORATIONS—*Continued*
Bank deposit account, 580–581
Dissolution of, 840, 923–925
Fiduciary functions for, 631–632
Foreign, 380
Dividend restrictions, 788
Mutual, 377
Officers (see "Corporate Officers")
Promotion, 349–366
Reorganizations, 927–952
Surplus in, 814–815
Stockholder's relationship to, 407
Subsidiary, 872–879, 920
Consolidated statements, 238
Indebtedness of, 230–231
Investment in, 230–231, 239
Jointly owned, 888
COSTS,
Depreciation, 768
Operating, 768
Expansion and, 699
Operating and capital asset, 745–746
Product, and working capital, 719
Production, and plant valuation, 860
Reproduction, in valuation, 859
Substitution, in valuation, 859
COTTON, Buying on call, 1138–1139
COTTON EXCHANGES (See "Commodity Trading")
COTTON FUTURES ACT, 1109
COTTON FUTURES CONTRACT, 1126–1127
COUNSEL, Investment, 339
CREDIT (See also "Bank Credit," "Banking," "Commercial Credit," "Loans," "Money")
Analysis, 217–218
Classes of, 533
Consumer, agencies, 604–606
Farm, 1251–1260
Federal Reserve, 155–156
Federal Reserve control of, 157–158
Foreign exchange instruments of, 645, 647
Government policies, 180
Intergovernmental agencies, 1270–1272
Letters of, 659–666, 1090
Policies, 702
And receivables, 714
Short-term, agricultural, 1255–1257
CREDIT ADJUSTMENT BUREAUS, 918
CREDIT ANALYSIS, 217–218
CREDIT INFORMATION, Short-term, 212
CREDIT MANAGEMENT, Banking system, 561–568
CREDIT REPORTS (See "Commercial Credit")
CREDIT STATEMENTS, Standard forms, 242–249
CREDIT UNIONS, 322–323, 606
CREDITORS, Meetings, in bankruptcy, 962
CREDITORS' COMMITTEES, 916–918, 963
CROSS TRADES, 1111
CURRENCY (See also "Money"),
Devaluation of U. S., 537
Federal Reserve, 535
Free vs. controlled, 640–641
CURRENT ASSETS, 228–231 (See also "Assets")
Administration as working capital, 712–718
CURRENT LIABILITIES (See also "Liabilities")
Definition, 233
Instalments on long-term debts, 234
CURRENT RATIO, In statement analysis, 242
CUSTODIAL ACCOUNTS, 628
CUSTOMERS,
Accounts, financing by brokers, 109–112
As buyers of securities, 9
Sale of stock to, 444
CUSTOMERS' STATEMENTS, 103–105

D

DATING, Extra, 1163
DEALERS,
Securities, 68
Government, 187–188
DEATH BENEFITS, Employees, 997, 1013–1014
Profit-sharing plans and, 1033–1034
DEBENTURE BONDS, 504–505
DEBT,
Cancellation, surplus from, 810, 826
Discharge, bankruptcy, 977
Financing, 459–525
Agricultural, 1254
Funded, 234, 252–253
Priorities, in bankruptcy, 974–975
DEED OF TRUST, 616
DEEP ROCK DOCTRINE, 879, 920
DEFERRED CHARGES,
Amortization of, 233
Writing off, 233
DEFERRED INCOME, As liability, 234
DEFICITS, 824–826
DELIVERY,
Of futures contracts, 1125
Of negotiable instruments, 1054–1055
Of securities, 101–102
Government, 190
DEPLETION, 774–777
In dividends policy, 784, 790
In statement analysis, 225
DEPOSIT AGREEMENT, Reorganizations, 949
DEPOSITS (See "Bank Deposits")
DEPRECIATION, 765–774 (See also "Amortization")
Appreciation and, 773
As working capital source, 725
Effect on working capital, 767
In financial analysis, 223–224
Inadequate, effect of, 768
Methods of calculating, 770–773
Of capital assets, 765–767
Policy, and S.E.C., 223–224
Reserves against increased, 821
DEVALUATION, Of U. S. Currency, 537
DIRECTORS,
Bank, requirements, 572–573
Board of, 394–400
Committees, 706
Dividend declarations and, 799
Financial planning, responsibility for, 703–706
Liability of, dividends, 787–788
Power to establish reserves, 822
Sale of assets and, 839
Surplus adjustments and, 823

Disability Pension Benefits, 1011–1012
Profit-sharing plans and, 1032
Discharge, Negotiable instruments, 1076–1078
Discounts,
Bank and true, 1166–1172
Cash, 714
Chain, 1172–1174
On note, computations, 1166–1170
Dishonor, Negotiable instruments, 1071–1076
Dissolution, Corporate, 840, 923–925
Dividends, 779–806
From subsidiaries, 240
Insured banks, restrictions, 578
Liquidating, 900
Payment, in bankruptcy, 975
Preferred arrearages, 904–909
Drafts (See also "Bills of Exchange")
Sight, 645, 647
Time, 647
Dun and Bradstreet,
Commercial credit service, 212–215
Financial statement, standard form, 243–244

E

Earned Surplus (See "Surplus")
Earnings,
As investment analysis factor, 217
Of subsidiaries, 240
Reinvested, surtax, 789
Valuation, 857
Electric Light and Power Companies, 288
Electric Railways, 289
Employee Benefits, 983–1037
Employees,
Annuities (See "Annuities")
As buyers of securities, 9
Benefits, 983–1037
Contributions, pension plans (See "Pension Plans")
Loans to, 713
Pension plans, 981–1024
Profit-sharing plans, 1024–1037
Retirement (See "Pension Plans")
Sale of stock to, 443
Severance benefits, 1012–1013, 1032–1033
Equalization Accounts, In foreign exchange, 544
Equipment,
Obsolescence, 747
Purchase of, 744–745, 747
Valuation of, 231–232, 860
Equipment Obligations, 499–501
Escrow Accounts, 629
Estate (See "Trusts")
Exchange, Foreign (See "Foreign Exchange")
Exchanges,
Commodity, 1099–1142
Foreign commodity, 1101
Futures, 1100–1142
Securities, 66–88
Ex-dividend Stocks, 84
Executor, Functions of, 613–614
Expansion,
Anticipated, capital expenditures for, 750
Expansion—*Continued*
By combination, 829–889
Financial planning for, 697–700, 829–889
Working capital and, 699, 720, 831–832
Expenditures,
Capital,
For expansion, 750
Timing, 751
Expenses, Discretionary, S.E.C. requirement, 222
Export-Import Bank, 654, 1268–1270
Exporters, Financing, 655–659
Ex-Rights Stock, 84
Extra Dating, 1163

F

Factoring, 467, 723
Farm Credit (See "Agriculture")
Farm Credit Administration, 1251, 1252–1254
Farm Loans (See "Loans")
Farmers Home Administration, 1251, 1252, 1259–1260
Federal Advisory Council, 546
Federal Debt (See "Government")
Federal Deposit Insurance Corporation, 551, 576–578
Examination of members, 573
Federal Farm Mortgage Corporation, 1252 1255
Federal Funds Market, 150–151
Federal Home Loan Bank System, 321, 1260, 1262–1263
Federal Home Loan Banks, Obligations, as investment, 182
Federal Housing Administration, 1260–1262
Federal Intermediate Credit Banks, 1252. 1257
Obligations, as investment, 182
Federal Land Banks, 1252, 1254
Obligations, as investment, 182
Federal Loan Agency, 1246
Federal National Mortgage Association, 1264
Federal Public Housing Authority, 1264–1265
Federal Reserve Bank of New York.
Financial statement, credit, standard form, 245–248
Federal Reserve Banks,
Assets of, 153–154
Capital accounts, 155
Credit, 155–156
Control of, 157–158
Excess reserves, 156–157
Foreign exchange operations, 653–654
Government securities market, role in, 189
Industrial advances by, 1251
Liabilities of, 154–155
Loanable funds, 161
Statement, consolidated, 151–158
Statement of reporting member banks, 158–160
Wartime credit policy, 158
Federal Reserve System, 546–551
Currency, 535

FEDERAL RESERVE SYSTEM—*Continued*
Operations, in money market, 195
Policies,
Credit management, 566–567
Influence on money market, 194
FEDERAL SAVINGS AND LOAN INSURANCE CORPORATION, 1263
FEES,
Personal trust, 629–631
Security registration, 83–84
FIDUCIARIES (See "Trusts")
FIELD WAREHOUSE LOANS, 467–468, 600, 724
"FIFO," Method of inventory valuation, 221
FINANCE, Mathematics of, 1147–1241
FINANCIAL AND OPERATING RATIOS, 243–255
FINANCIAL PLANNING, 667–706 (See also "Budgets," "Expansion," "Fixed Capital," "Working Capital")
Fixed capital expenditures and, 762–765
FINANCIAL REPORTING SERVICES (See "Investment Services")
FINANCIAL REPORTS, 199–260 (See also "Financial Statements")
Analysis of, 201–206
Sources of data, 208
"Humanizing" features, 206
Interim, 210
New York Stock Exchange, requirements, 203–204
Railroad, 276–280
Regulation by Interstate Commerce Commission, 202–203
Securities and Exchange Commission, requirements, 205
To board of directors, 705–706
To employees, 207
FINANCIAL STATEMENTS (See also "Balance Sheet," "Income Statement")
Analysis,
Comparative, 253
For financial management, 218
Ratios, 243–255
Application of funds, 255–257
Certification by accountants, 241
Consolidated,
Analysis of, 237–241
Subsidiaries, 238, 239
Projection of, 259–260
Railroad, 276–280
Standard forms for credit, 242–248
Stock dividends in, 793–795
FINANCING (See also "Financial Planning")
Accounts receivable, 723–724
Agriculture, 1251–1260
Loans by Reconstruction Finance Corp., 1248
Bond, 457–525
Combinations, steps in, 862–864
Customers' accounts by brokers, 109–112
Debt, 459–525
Expansion, 697–700, 829–889
Exports, 655–659
Foreign trade, 655–666
Funded pension plans, 998–1001
Government agencies for, 1243–1274
Imports, 658, 659–664
Inventories, 724–725
FINANCING—*Continued*
Proposals for, 14–17
Small business, 6–7, 722
Loans by Reconstruction Finance Corp., 1247
Subsidiaries, by holding companies, 872
"FINDERS," 14
FISCAL AGENT, 633, 806
FIXED ASSETS, Ratios in statement analysis, 253
"FIXED BENEFIT" PENSION PLANS, 1022–1024
FIXED CAPITAL, 739–777
Conversion to working capital, 726
Dividends and, 790
Turnover, 751–753
FIXED CHARGES, Reduction in reorganization, 942–943
"FLOATING DEBT," Government, 177
FLOOR BROKERS, 1117
FLOOR TRADERS, 72
FORECASTS (See "Budgets")
FORECLOSURE SALE, 930
FOREIGN CORPORATIONS, 380, 788
FOREIGN EXCHANGE, 637–650
Brokers, 640
Control, 640, 647–648
"Future" or "forward" transactions, 648–649
Markets, 639–650
Quotations, 641–647
Spot transactions, 648
FOREIGN ISSUES, Distribution of blocks, 134
FOREIGN TRADE,
Financing, 655–666
Agencies, 1268–1270
Hedging, 1134
FORGERY, 1056–1057, 1088
FOUNDERS' SHARES, 442
FRANCHISES, Public utility, 282–283
"FREE RIDING," 185
FUNDED DEBT,
Ratios, in statement analysis, 252–253
Valuation of, 234
FUNDING,
Pension plans, 985–986
Preferred dividend arrearages, 904–909
FUTURES,
Exchanges, 1100–1142
Trading, 1099–1142

G

G. I. BILL OF RIGHTS (See "Servicemen's Readjustment Act")
G. I. LOANS, By government agencies, 1265–1268
GAS COMPANIES, 288–289
GOLD POINTS, 641
GOLD RESERVE ACT, 536
GOLD STANDARD, 536
GOODWILL, Writing off, in recapitalization, 898
GOVERNMENT,
Banking system, U. S., 545–548
Budget, 179
Control over interest rates, 142–145
Debt management, 179
Effect on bond market, 195

GOVERNMENT—*Continued*
Federal Home Loan Banks, obligations, as investment, 182
Federal Intermediate Credit Banks, obligations, as investments, 182
Federal Land Banks, obligations, as investment, 182
Financing agencies, 1243–1274
Intergovernmental, 1270–1272
Fiscal policy, 179
Credit and, 567
"Floating debt," 177
Postal Savings System, 183, 317–318
Public debt, 175–178
Regulation,
Banking, 552–553, 572–573
Commodity exchanges, 1108–1116
Depreciation, 773
Holding companies, 884
Interstate Commerce Commission, 203
Investment companies, 337–339
Listed securities, loans, 106–107
Public utilities, 284–285
Public utility holding companies, 880–884
Railroads, 203
Securities trading, 120–122
Security issues, 460
Short-term financing, 177, 178
United States Treasury,
Bills, as investments, 182
Bonds, 181, 474, 515
Depositary bonds, 183
Money market and, 163–165
Savings bonds, 182, 184
Savings notes, 183
GOVERNMENT BONDS (See "Bonds")
GOVERNMENT CERTIFICATES OF INDEBTEDNESS, 181
GOVERNMENT SECURITIES, 173–196
As investments, 180
Dealers in, 187–188
Federal Reserve banks, market role, 189
For bank investment, 591–592
"Free riding," 185
Interest calculations, 1161–1162
Market, 186–193
Marketable issues, 181
Money market relationship, 193
Nonmarketable issues, 182, 183
Offering dates, 186
Offering terms, 185
Prices, factors affecting, 193
Selection of, 181
Short-term, 151
Tax status, 185
Trading, 188–191
"Yield patterns," 191–192
Yields, factors affecting, 193
GOVERNMENT TREASURY NOTES, 181
GRADING,
Cotton, 1104–1105, 1126
Hides, 1128
Wheat, 1129
GRAIN FUTURES ACT, 1109
GUARANTEED STOCK, 441–442
GUARDIANS,
Of an incompetent, 616
Of a minor, 615

H

HEDGERS, 1117
HEDGES, Types of, 1133–1135
HEDGING, 1108, 1133–1139
HIDES FUTURES CONTRACT, 1128
HOLDER IN DUE COURSE, 1063
HOLDING COMPANIES,
Changes in corporate structure, 919
Expansion by, 868–884
Laws respecting formation of, 870
Public utilities, 290, 879–883
Surplus of, 813–814
HOME LOAN BANK SYSTEM, 321
HOME OWNERS LOAN CORPORATION, 1263–1264
HOUSING,
Financing, government agencies, 1260–1263
Loans to veterans, 1267
HOUSING AGENCIES, 1260–1265

I

IMPORTERS,
Financing, 658, 659–664
Hedging, 1134
INCOME,
And dividend policy, 781
Deferred, as liability, 234
Surtax, undistributed, 789
INCOME STATEMENT,
Analysis, 219–227
Credit analysis, use in, 218
Estimated, 691–694
Railroad, 276–280
INCORPORATION (See "Corporate Organization")
INDENTURE, Bond, 473–486
INDORSEMENTS (See "Negotiable Instruments")
INDUSTRIAL BANKING, 605
INDUSTRIAL SECURITIES, Analysis of, 290–295
INLAND BILL OF EXCHANGE, 1044, 1079
INSOLVENCY, 930
Rule, dividend payment, 786
INSTALMENT SALES, Analysis, 220
INSTALMENTS, Sinking fund, calculations, 1195–1201
INSTITUTIONAL SECURITIES CORP., 315
INSTRUMENTALITY RULE, Subsidiaries, 878
INSTRUMENTS,
Negotiable, 1039–1095
Trust, provisions, 622–624
INSURANCE,
Bank deposits, 551, 575–578
Coinsurance clause, 749
Endowment, 342
Federal Housing Administration, 1261
Mortgage, 302–303
On fixed capital assets, 748–749
Pension plans, 983–1024
Reserves for, 821
Savings and loan, 321–322
Self-, of fixed capital assets, 748–749
Term, 341
Whole life, 341
INSURANCE COMPANIES, 323–340 (See also "Life Insurance Companies")
Stocks, 296–297

INTANGIBLE ASSETS, Valuation of, 233, 861
INTERCORPORATE READJUSTMENTS, 919–921
INTERCORPORATE RELATIONS, 827–889
INTEREST, 1090–1093, 1149–1241
  Charges of brokers, 108–109
  Computations, 1150–1241
  "Merchant's rule," 1169
  Negotiable instruments, 1054–1055
  New York State rule, 1095
  On Banks for Cooperatives loans, 1257
  On bonds, calculation, 1211–1219
  On notes, computation, 1166–1170
  On Production Credit loans, 1256
  Periods, tables, 1151–1152
  Rates, 139–171
    Government control, 142–145
    Money market and, 141–171
  Tables, use of, 1151, 1157–1162
  "United States Rule," 1093, 1169
INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT, 534, 654–655, 1272–1274
INTERNATIONAL BANKING, 637–666
INTERNATIONAL MONETARY FUND, 534, 654–655, 1270–1272
INTERNATIONAL MONETARY SETTLEMENTS, 534
INTERSTATE COMMERCE COMMISSION, Regulation of financial reports by, 202–203
INVENTORIES,
  Control of, as working capital, 715–718
  Distortion, in balance sheet, 230
  Financing, 724–725
  Hedging, 1135
  In financial planning, 702
  Reserves against declines in, 821
  Turnover of, 719
  Valuation of, 221–222, 717, 718
INVESTMENT ADVISERS ACT OF 1940, 99, 339–340
INVESTMENT ANALYSIS, 217
INVESTMENT BANKING, 10–62
  Accounting, 46–47
  Internal organization, 13
  New issues, 13–16
  Retailers, 12
  Sales department, 29
  Statistical services, 46
  Wholesalers, 12
INVESTMENT COMPANIES, NATIONAL ASSOCIATION OF, 339
INVESTMENT COMPANY ACT OF 1940, 321, 337–339
INVESTMENT FUNDS, Need for, 3–4
INVESTMENT SERVICES, 210
INVESTMENTS,
  Analysis, 217
  Banks, 590–595
  Classes of, 263
  Counsel, 339
  Direct vs. indirect, 307
  Government securities, 180–196
  In subsidiaries, analysis of, 230–231, 240
  Investigation and research, 271
  Legal restrictions, 268–269
  Management, trust company organization for, 624–626
  Of surplus cash, 712–714
  Pension plans, 1018
  Portfolio policy, 269–270
INVESTMENTS—*Continued*
  Principles, 263–272
  Profit-sharing funds, 1034–1035
  Tax factor, 267
  Trust, provisions regarding, 622–626
INVESTORS,
  As buyers of securities, 8–9
  Life insurance companies as, 346

J

JOB LOT TRADING, 1119, 1122
JOINT ACCOUNT, Bank, 580
JOINT STOCK COMPANIES, 376–377

L

LAND, Valuation of, 231–232
LEASES, Combination by, 864–868
LEASING, Financing buildings through, 524–525
LETTER OF HYPOTHECATION AND GENERAL ASSURANCE, 664
LETTERS OF CREDIT, 659–666, 1090
LEVERAGE FACTORS,
  Capital, 271–272
  Operating, 271–272
LIABILITIES,
  Bank, deposits as, 578
  Classification of, 228
  Contingent, 235
  Definition, 227
  In balance sheet, analysis of, 233–235
LIABILITY, Negotiable instruments, 1067
LIFE INSURANCE COMPANIES,
  As investors, 346
  Investment aspects of, 340–346
"LIFO," Method of inventory valuation, 221–222
LIMITED ORDER, 81
LINE OF CREDIT, 603–604
LIQUIDATING DIVIDENDS, 797
LIQUIDATIONS, 921–923
LISTING SECURITIES, 74
LISTING STATEMENTS, 76
LIVING TRUSTS, 617–618
LOANS (See also "Credit")
  Amortization of, 1208
  Bank, 595–604, 1166
    Trends, 559
  Brokers', 147–149, 713
  Call, 601
  Cash forecasts and, 687
  Commercial, compared with investment funds, 3
  Farm, 1251–1260
    Rediscount facilities for, 1257
    To veterans, 1267
  Field warehouse, 467–468, 600, 724
  For working capital, 722, 723
  Government agencies, 1245–1274
  Housing, 1264–1265
    Veterans, 1267
  International Bank for Reconstruction and Development, 1273
  Reconstruction Finance Corporation, 1245–1251
  Regulation of, on securities, 106–107

LOANS—*Continued*
Secured bank, 599–601
Term-, 464–465
By banks, 604
To brokers, 713
To employees, 713
To officers, 713
Veterans, 1265–1268
LOGARITHMS,
Tables, use of, 1225–1235
Use of, 1223–1225
LONDON MONEY MARKET, 169–171
LOSSES,
Absorption through surplus, 817
On bond sales, calculation, 1222
Surplus adjustments for extraordinary, 822

M

MAIL TRANSFERS, Of exchange, 645, 646
MAINTENANCE, Depreciation vs., 767
MANAGEMENT INVESTMENT COMPANIES, 327–328
MARGIN TRADING, 105–106
MARGINS, Futures transactions, 1116, 1123–1124, 1132–1133
MARKET,
Acceptance, 149–150
Commercial paper, 150–151
Federal funds, 150–151
MARKET ORDERS, 80–81
MARKET STABILIZATION, 42–45
MARKETABLE SECURITIES, Valuation, balance sheet, 229
MARKETS (See also "Exchanges")
Bond, 195
Capital, 145
"Contract," commodities, 1110
Money, 145–171
Over-the-counter, 67, 114–120
Securities, 63–137
Government, 186–193
Municipal, 300
Spot commodity, 1142–1145
MASSACHUSETTS TRUST, 375, 883
MATHEMATICS OF FINANCE, 1147–1241
MATURITY, Negotiable instruments, 1070–1071
MERCHANDISE TURNOVER, In statement analysis, 250
MERGERS, 852–855
Surplus from, 813
To clear dividend arrearages, 906
To end leases, 868
MINORITY INTEREST, In subsidiary, 240
MONEY, 527–541
Gold standard, 536
Silver as, 537
Supply, and price level, 562
System of U. S., 534–541
MONEY MARKETS, 145–171
Effect of business cycle on, 165
Effect of prices on, 165–166
Federal Reserve policies, 194
Government securities relationship to, 193
Influence on government bond prices, 194
MONEY MARKETS—*Continued*
London, 167–171
New York, 146
Relation of, to foreign money centers, 166
Relation of, to interior, 161–163
Paris, 171
Treasury financing and, 163–165
"MONEY PURCHASE" PENSION PLANS, 1022–1024
MORTGAGE BONDS, 486–494
MORTGAGE INSURANCE, 302–303
MORTGAGES,
Combinations and, 843
Consolidations and, 851
Farm mortgage lending, 1254–1255
Federal Housing Administration, 1261
Investment companies, 1264
Real estate, 301–303
As bank investments, 595
As security for loans, 600
MUNICIPAL BONDS, 297–301, 474–475
MUTUAL CORPORATIONS, 377

N

NATIONAL ASSOCIATION OF INVESTMENT COMPANIES, 339
NATIONAL ASSOCIATION OF SECURITIES DEALERS, 118–120
NATIONAL FARM LOAN ASSOCIATIONS, 1254
NATIONAL HOUSING AGENCY, 1260
NEGOTIABILITY, Requirements, 1041
NEGOTIABLE INSTRUMENTS, 1039–1095
NET WORTH, In statement analysis, 251–252
NEW BUSINESS (See "Business, New")
NEW YORK COTTON EXCHANGE CLEARING ASSOCIATION, INC., 1131, 1132
NEW YORK COTTON FUTURES CONTRACT, 1103, 1126
NEW YORK MONEY MARKET (See "Money Markets")
NEW YORK STOCK EXCHANGE, 69–79 (See also "Stock Exchanges")
Financial report requirements, 203–204
NO-PAR VALUE STOCK, 413–417
In recapitalizations, 896–897
NOTE ISSUES, Corporate, 463
NOTES,
Interest and discount computations, 1166–1172
Promissory, 463, 1042–1043, 1046, 1086, 1166, 1167
Treasury, 181
Savings, 183
NOTES RECEIVABLE, In balance sheet analysis, 229
NOTICE OF DISHONOR (See "Negotiable Instruments")

O

OBSOLESCENCE,
Of equipment, 747
Of capital assets, 767
ODD-LOT DEALERS, 73
ODD-LOT TRADING, 80, 92–93
OFFICERS, CORPORATE, 225, 400–403
Loans to, 713

OPEN INTEREST, Futures markets, 1140–1142
OPTION CONTRACTS, In corporate promotion, 354–355
OPTIONS, 80
  Dealing in, 93–95
ORDERS,
  Broker, types of, 80–82
  Commodity exchanges, handling, 1117
  Securities exchange, execution of, 82
ORGANIZATION,
  Corporate, 379–403
  Forms of business, 367–403
OVER-THE-COUNTER MARKETS, 67, 114–120

P

PAR VALUE STOCK, 410–413
  Value change, recapitalization, 896
PARIS MONEY MARKET, 171
PARTIAL PAYMENTS, Computations, 1169–1170
PARTNERSHIPS,
  Bank account, 580
  Bankruptcy, 971
  General, 371–373
  Limited, 373–374
PAYMENT, Negotiable instruments, 1044–1054, 1071
PAYROLL SERVICE, Banks, 574, 583
PENSION COMMITTEE, 1020
PENSION PLANS, 981–1024
  Profit-sharing plans compared with, 1027–1028
PERSONAL FINANCE COMPANIES, 605–606
PETITION,
  In bankruptcy, 954–956
  In reorganization, 932
PHILADELPHIA PLAN, Of equipment obligations, 499–500
PIPE LINES, 289
PLANT VALUATION, 860–861
POOL OPERATIONS, Prevention of, 96–97
PORTFOLIO POLICY,
  Banks, 593
  Investments, 269–270
POSTAL SAVINGS SYSTEM, 183, 317–318
PREFERRED STOCK, 436–441
  Dividend arrearages, funding, 904–909
  In sale of corporate assets, 845
  Recapitalizations and readjustments, 902–904
  S. E. C. requirements in statements, 236
PRE-INCORPORATION CONTRACTS, 353–355
PRESENT VALUE,
  Computation, 1181–1188
  Of annuities, 1202–1210
  Tables, use of, 1182–1188
PRESENTMENT, Negotiable instruments, 1044, 1067–1070
PRICE-CUTTING, Of security offerings, 37–40
PRICES,
  Bank credit and, 165–166
  Commodity, manipulation of, 1122
  Dow theory of stock, 98
  Forecasts of selling, 698
  Futures market, 1122, 1140
  Government bonds, 193–194
PRICES—*Continued*
  Indices of security, 97
  Influence on money market, 165–166
  Money supply and, 562
  Of bonds, computations, 1211, 1219
  Spot, determination of, 1143
PRIVILEGES (See also "Options")
  Conversion, 595
  Subscription, 507
  Warrants, bond, 511
PRODUCTION CREDIT CORPORATIONS, 1252, 1255, 1256
PROFIT AND LOSS STATEMENT (See "Income Statement")
PROFIT RATIO, In statement analysis, 254
PROFIT-SHARING PLANS, 1024–1037
  Pension plans compared with, 1027–1028
PROFITS,
  Break-even chart, 692
  Cash income vs., 679
  Investment companies, 325
  On bond sales, calculations, 1222
  Planning for, 687–694
  Sharing plans, 1024–1037
  Surplus adjustments for extraordinary, 822
  Test, dividend payment, 785
  Variation of, analysis, 255, 258
PROMISSORY NOTES, 463, 1042–1043, 1046, 1086
  Interest-bearing, 1166
  Noninterest-bearing, 1167
PROMOTERS, 349–350
  Compensation of, 351–352
  Legal status of, 352–353
PROMOTION, 347–366
  Financial plan for, 361–365
  Of combinations, 862–863
  Report, 357–361
PROPERTY,
  Debtors, in bankruptcy, 959, 967, 974
  Fixed, turnover of, 752
  Valuation of, 231–232
    In reorganization, 941–942
PROPERTY DIVIDENDS, 795–796
PROPRIETORSHIP, 371
PROSPECTUS,
  Red Herring, 35–36
  Security, 52–54
PROTECTIVE AGREEMENT, In reorganization, 949
PROTECTIVE COMMITTEES, In reorganizations, 946–952
PROTEST, Negotiable instruments, 1071, 1076 1083–1086
PROXIES, 423–435
PUBLIC DEBT (See "Government")
PUBLIC HOUSING (See "Housing Agencies"
PUBLIC OFFERING, Of securities, 36–37
PUBLIC UTILITIES,
  Classes of, 287
  Franchises, 282–283
  Holding companies, 290, 879–883
  Rates, 283–284
  Regulation, 284–285
  Securities, 282–290
  Statistical units, 287
PUBLIC UTILITY HOLDING COMPANIES, 290, 879–883

PUBLIC UTILITY HOLDING COMPANY ACT,
Corporate structure changes under, 920–921
Debt readjustments under, 913
PURCHASE GROUP, 21–22
PURCHASE GROUP CONTRACT, 23–25
PURCHASE WARRANTS, Stock, 85, 451–453
"PUT," 93

Q

QUICK ASSETS, Ratio, 252

R

RAILROADS,
Analysis ratios, 276
Capitalization, 280–281
Financial statements, 276–280
Leases, 867
Operating expenses, 275–276
Rates, 274–275
Regulation, Interstate Commerce Commission, uniform accounting, 203
Reorganization, 940–941
Securities, 272–281
Traffic, 273–274
RAILWAYS, ELECTRIC, 289
RATES, Interest, 139–171
Public utility, 283–284
Railroad, 274–275
RATIOS,
Financial and operating, 243–255
Security analysis, use of, 294–295
Working capital, 732–737
READJUSTMENTS, Corporate, 891–925
REAL ESTATE MORTGAGES, 301–303, 595, 600
RECAPITALIZATIONS, 891–909
RECEIVABLES (See also "Accounts Receivable," "Notes Receivable")
As working capital, 714
Turnover, 714, 719
RECEIVER,
In bankruptcy, 960
Trust companies as, 632
RECONSTRUCTION FINANCE CORPORATION, 1246–1251
"RED HERRING PROSPECTUS," 35–36
REDISCOUNT,
Farm loans, 1257
Federal Reserve System, 549
REFEREE, In bankruptcy, 960–962
REFUNDING, Of bonds, 521–523
REGIONAL AGRICULTURAL CREDIT CORPORATIONS, 1252, 1258
REGISTRAR, Trust companies as, 633
REGISTRATION, Securities, 50–54, 76, 83–84, 122–133
REGULATION OF BUSINESS (See "Government")
RENTS,
Annuity (See "Annuities")
Fixed, in corporate leases, 867
REORGANIZATIONS, 927–952
Arrangements, 929, 938–952
Equity, 929
Loans by Reconstruction Finance Corp., 1248
REORGANIZATIONS—*Continued*
Plan, 934–937, 941–948
Railroads, 940–941
REPAIRS, Relation to depreciation, 767
REPLACEMENTS, Capital, estimates of, 751
REPORTS, Annual, 201–210
Financial, 201–260
Promotion, 357–361
RESERVES, For contingencies, 702, 767, 819–820
Omnibus, 823
Pension, bookkeeping, 985
Secret, 823
Sinking fund, 820
Surplus, 818–822
Restricted, as reserves, 237
RESOLUTIONS, Dividends, 799–801
RETIREMENT, 1004–1005
Group permanent, income, 990, 1000
Individual income policies, 990, 996–1000, 1019
Pension plans, 983–1024, 1029
Profit-sharing plans, 1029, 1031–1032
REVENUE BONDS, 300
REVENUES, Analysis of, 219–220
RFC MORTGAGE COMPANY, 1264
RIGHT OF SET-OFF, Bank deposits, 578–579
RURAL ELECTRIFICATION ADMINISTRATION, 1259

S

SALES,
Analysis of, 219–220
Expansion and, 698
SALES FINANCE COMPANIES, 604–605
SALESMEN, Security, 41–42
SANCTIONS,
Under Blue Sky Laws, 62
Under Security Act, 56–57
SAVINGS, Banks, 309–318
Direct vs. indirect investment of, 307
Institutions, 305–346
Postal, 183, 317–318
Purposes of, 307–309
Supply of capital and, 4–5
SAVINGS AND LOAN ASSOCIATIONS, 318–322
SAVINGS AND LOAN INSURANCE, 321–322
SAVINGS BANKS, 309–318
SAVINGS BANKS TRUST COMPANY, 315
SAVINGS BONDS, Government, 182
Values and yields, 184
SAVINGS DEPOSITS, 573
SCRIP CERTIFICATES, 454
SCRIP DIVIDENDS, 795
SEAL, Negotiable instruments, 1051
SECONDARY DISTRIBUTION, Securities, 87–88
SECRET RESERVES, 823
SECURITIES (See also "Bonds," "Government Securities," "Security Issues," "Stock," "Stocks")
Agents, 633–634
Analysis of, 261–303
Arbitrage in, 135–137
Bank purchase eligibility, 590–595
Buyers of, 7–9
Delivery of, 101–102
Exempted from Securities Act, 54–55
Federal regulation of trading, 120–122

SECURITIES—*Continued*
Financial, 295
Foreign issues, distribution, 134
Holders, in reorganization, 937–938
Indices of prices, 97–98
Industrial, 290–295
International dealings in, 133–137
Listing on exchange, 74
Listing statements, 76
Loans, regulation of, 106–107
Margin purchase of, 105–106
Marketable, valuation of, 229
Markets for, 63–137
Government, 186–193
Municipal bonds, 300
New business, 364–366
Prospectus, 52–54
Public offering, 36–37
Public utility, 282–290
Railroad, 272–281
Ratings, 99, 271
Registration of, 50–54, 76, 83–84, 122–133
Registration withdrawal, 76
Secondary distribution, 87–88
Selling, 1–62
Services, 99
Speculation in, 95–99
Transactions exempted from Securities Act, 55–56
Unlisted trading, 76–77
SECURITIES ACT OF 1933, 47–58, 352
SECURITIES AND EXCHANGE COMMISSION, Accounting requirements, 205–206, 225–226
SECURITIES DEALERS, NATIONAL ASSOCIATION OF, 118–120
SECURITIES EXCHANGE ACT OF 1934, 120
SECURITIES EXCHANGES, 66–88 (See also "Stock Exchange")
Bond trading on, 112–113
Settlement of transactions, 100–102
SECURITIES MARKETS, 65–137
Over-the-counter, 114–119
SECURITIES TRADING, On exchanges, 80–88
SECURITY DEALERS, Government, 187–188
SECURITY ISSUES,
"Beating the gun," 40
Carrying, by underwriters, 27–28
Price-cutting, 37–40
Pricing of, 26
Public regulation of bonds, 460
Purchase of new, 13–28
Sale of, 28–42
SECURITY SALESMEN, 41–42
SELLING GROUP, 29–32
Abuses, 37–40
Agreement, 32–35
SELLING SYNDICATE (See "Selling Group")
SERVICEMEN'S READJUSTMENT ACT, 1265
SERVICES, Bank, 574, 583, 588–590
Commercial credit, 212–215
Investment, 210
Security, 99
SET-OFF, Right of, 578–579
SEVERANCE OF EMPLOYMENT BENEFITS, 1012–1013, 1032–1033
SHORT SELLING, 80, 88–92, 1117
SHORT-TERM CREDIT (See "Commercial Credit")
SIGHT DRAFTS, 645, 647 (See also "Bills of Exchange")
SIGNATURE, Negotiable instruments, 1055–1057
SILVER, As money, 537
SINKING FUND RESERVES, 820
SINKING FUNDS,
Calculations, 1195–1201
For bond retirement, 516–519, 521
SLIDE RULE, 1236–1241
SMALL BUSINESS,
Financing, 6–7, 722
Loans by Reconstruction Finance Corp., 1247
SOCIAL SECURITY BENEFITS, 1007
SOLE PROPRIETORSHIPS, 371
SPECIAL ASSESSMENT BONDS, 299–300
SPECIALISTS, Brokers, 76
SPECULATION,
Hedging vs., 1135
In foreign exchange, 649
In securities, 95–99
On commodity exchanges, curbs on, 1112–1113
SPECULATORS, 1117
As buyers of securities, 8–9
SPOT COMMODITY MARKETS, 1142–1145
"SPREAD," 93
SPREADER, 1117
STABILIZATION, Security market, 42–45
STAND-BY UNDERWRITING, 25–26
STATE BONDS, 297–299
STATEMENTS (See "Financial Statements," "Income Statement")
STOCK (See also "Securities")
Acquisition of control, 871–872
Agents, 633–634
Authorized, 417
For expansion purposes, 846
Bank, 295–296
Bonus, 451
Brokerage commissions on, 82–83
Capital, reduction, 897–900
Certificates, 408–409
Common, 441
Recapitalizations, 894–902
Convertible, 440
Corporate, 405–455
Dividends, 791–795
Donations, reducing deficit, 826
Dow theory of price movements, 98
Exchanges of, in combinations, 863–864, 872
Founders' shares, 442
Fractional shares, 453–455
Full paid, 419
Guaranteed, 441–442
Insurance, 296–297
Issued, 419
No-par value, 413–417
In recapitalizations, 896–897
Par value of corporate, 410–413, 896
Part-paid, 419
Preferred, 236, 436–441
Dividend arrearages, funding, 904–909
Recapitalizations and readjustments, 902–904
Purchase warrants, 451–453
Readjustments, 903–904

STOCK—*Continued*
Recapitalizations, 891–904
Reclassification of, 900–902
Reverse splits, 896
Sale of, 442–444
Scrip certificates, 454
Split-ups, 895
Subscription rights, 444–451
Subscriptions, 435–436
Surplus from corporate transactions, 808–810
Terms and definitions, 417–435
Transfer procedure, 409–410
Treasury, 419–421
STOCK EXCHANGE (See also "Securities Exchanges")
New York, 69–79, 203–204
"Questionnaire," 112
Settlement procedure, 100–102
Ticker service, 78–79
Trading facilities, 77–78
Trading methods, 78
STOCK SPLIT-UPS, 895
STOCK TICKER, 78–79
STOCKHOLDERS,
As buyers of securities, 9
Assessments of, 826
Dissenting, 842
Dividend notice to, 802–803
Dividends (See "Dividends")
Meetings, 391–394
Relationship to the corporation, 407
Sale of assets and, 839–840, 841–842
Subscription rights and, 444
Voting by, 421–435
STOCKHOLDERS' REPORTS (See "Financial Reports," "Financial Statements")
STOCKS (See also "Securities")
Bank, 295–296
Brokerage commissions on, 82–83
Dow theory of price movements, 98
Insurance, 296–297
STOP-LOSS ORDERS, 81, 1117–1118
STOPPING STOCK ORDER, 81–82
STRADDLE, 93
STRADDLERS, 1117
SUBSCRIPTION AGENT, Corporate, 634
SUBSCRIPTION RIGHTS, 444–451
SUBSCRIPTIONS, STOCK, 435–436
SUBSIDIARY CORPORATIONS (See "Corporations")
SURPLUS,
Capital, sources, 236
Charges to, 225–226
In S.E.C. statements, 225–226
Classification of, S.E.C., 236
Defined, 782
Dividends and, 779–806
Earned,
Definition, 236
Projection of, 695
Effect of combinations on, 862
From investment in subsidiaries, 239–240
Reserves, 237
Restricted, 236
SURPLUS PROPERTY DISPOSAL, Financing by Reconstruction Finance Corp., 1247, 1251
SYNDICATES, 374–375

T

TABLES,
Annuity, use of, 1189–1210
Anticipation, use of, 1163–1165
Bond, use of, 1213–1223
Compound interest, use of, 1176–1188
Interest, use of, 1151, 1157–1162, 1176–1188
Logarithm, use of, 1223–1235
Net cost factor, chain discount, 1173–1175
Present value, use of, 1182–1188
TAPE READERS, 99
TAXES,
Bond covenants, tax-free, 471
Borrowing and, 462
Combinations, 836–837
Dividend policy and, 788–790, 792–793
Government securities, status of, 185
Hedge transactions, 1135
Investment companies, 333–337
Investments, 267
Merger to end lease, 868
On excess working capital, 713–714
Pension plans, 986–988, 1019–1020, 1021
Profit-sharing plans, 1025–1026, 1030, 1037
Reserves as working capital, 725–727
State and municipal bonds, 297–298
Transfer, 83–84, 114
TELEPHONE AND TELEGRAPH COMPANIES, 289
TERM-LOANS, 464–465
By banks, 604
TERMS, Purchasing, 719–720
Stock, 417–435
Trade, cash commodity transactions, 1143–1145
TERMS OF SALE, 714, 720
THOMAS AMENDMENT, And gold standard, 536
TIME DRAFTS, For foreign exchange, 647
TRADE ACCEPTANCES, 601, 1089
Domestic, 601
TRADE ASSOCIATIONS, 886–887
TRADING,
Bonds on exchange, 112–113
Commodity, 1097–1145
Futures, 1099–1142
Government securities, 188–191
Job lot, 1119, 1122
Margin, 105–106
Securities (See "Securities Exchanges")
Spot commodity, 1142–1145
Terms, cash commodity transactions, 1143–1145
TRADING IN HAND, 1111
TRAFFIC, Railroads, 273–274
TRANSFER AGENT, 633
TRANSFER TAXES, 83–84, 114
TREASURY (See "Government")
TREASURY BILLS, 182
TREASURY BONDS, 181, 474, 515
TREASURY NOTES, Government, 181
Savings, 183
TREASURY STOCK, 419–421
TRUST AGREEMENT, 616
TRUST COMPANIES, 323–340, 609–632
Agency services, 628
As savings institution, 323–340
Corporate trust business, 631–634
Custodial accounts, 628

TRUST COMPANIES—*Continued*
Investment management, organization of, 624–626
Personal trust business, 611–631
Trust Department management, 612
TRUST INDENTURE ACT OF 1939, 476–479
TRUST RECEIPTS, 599, 724
TRUSTEES,
Accountability, 626
Contracts in corporate promotion, 354
Corporate, 475–479
Duties of, personal trust, 623
For bondholders, 632
In bankruptcy, 967–969
In reorganization, 933–934
Pension plan, 1020–1022
Profit-sharing plan, 1036–1037
TRUSTEES' CONTRACTS, In corporate promotion, 354
TRUSTS, 607–634
As combination device, 870–871
Business, 375–376
Corporate, 631–634
Instrument, provisions, 622–624
Living, 617–618
In contemplation of death, 618
Life insurance, 617–618
Pension and profit-sharing, 618
Retirement, 617
Personal, 612–631
Under will, 617
Unit or fixed, 329–330
Voting, 435, 871
TURNOVER,
Bank deposits, 160–161
Merchandise, 250
Of fixed capital, 751-753
Of fixed property, 752
Of inventories, 719
Of working capital, 254
Ratios, in statement analysis, 250, 253
Receivables, 714, 719

U

UNDERWRITERS, Compensation of, 26
UNDERWRITING, Stand-by, 25–26
UNDERWRITING CONTRACT, 17–21
UNIFORM ACCOUNTING (See "Accounting")
UNIFORM NEGOTIABLE INSTRUMENTS ACT, 1045–1058
UNITED STATES GOVERNMENT (See "Government")
UNITED STATES HOUSING AUTHORITY, 1265
"UNITED STATES RULE," Interest, 1093, 1169
UNITED STATES TREASURY (See "Government")
UNLISTED TRADING, 76–77
USURY, 1093–1095
UTILITIES (See "Public Utilities")

V

VALUATION,
In business combinations, 856
Of annuities, 1188–1210
Of assets, 229–233
In combinations, 859–862
VALUATION—*Continued*
Of bank investments, 592
Of bonds, 1210–1223
Of equipment, 231–232, 860
Of fixed tangible assets, 742–743
Of funded debt, 234
Of intangible assets, 233, 861
Of inventories, 221–222, 717, 718
Of land, 231–232
Of marketable securities, balance sheet, 229
Of plant, 860
Of property, 231–232
In reorganization, 941–942
Of stock, recapitalization changes, 896–897
Of subscription rights, 449–451
Reproduction costs in, 859
Requirement, for dividend declaration, 785
Substitution costs in, 859
VALUE OF SUBSCRIPTION RIGHTS, 449–451
VETERANS, Loans to, 1265–1268
VOLUNTARY CHAINS, 888–889
VOTING,
By stockholders, 421–435
Power, preferred stock, 439
VOTING TRUSTS, 435, 871

W

WAR ASSETS ADMINISTRATION, 1251
WAR LOAN DEPOSITS, 574
WAR SURPLUS PURCHASES, Credits to finance, 1251
WAR VETERANS, Loans to, 1265–1268
WAREHOUSE RECEIPTS, 468, 1105
As collateral, 600
WARRANTIES, Negotiable instrument, 1042–1066
WARRANTS,
Stock purchase, 451–453
Subscription, 444
WASH SALE, 1111
WASTING ASSETS, Depletion of, 774–777
WATER WORKS, 289
WEBB-POMERENE ACT, 885–886
WHEAT FUTURES CONTRACT, 1129
"WHEN ISSUED" TRADING, 85–87
WORKING CAPITAL, 707–737
Analysis ratios, 731–737
As investment analysis factor, 217
Cycle, 711
Differentials, cash forecasting, 685–687
Dividends and, 790
Effect of depreciation, 767
Expansion requirements of, 699, 720, 831–832
Reorganizations, 944
Requirements, factors affecting, 718–721
Sources of, 721–727
Turnover of net, 254
WORKING CAPITAL RATIOS, 732–737
WORKMEN'S COMPENSATION, 821

Y

YIELD, Of bonds, computations, 1211–1222

LIST OF SECTIONS

Numeric

SECTION		PAGE
1.	Security Selling	1
2.	Securities Markets	63
3.	Interest Rates	139
4.	United States Government Obligations	173
5.	Financial Reports and Analysis	199
6.	Security Analysis	261
7.	Savings Institutions	305
8.	Promotion	347
9.	Forms of Business Organization	367
10.	Corporate Stock	405
11.	Bond Financing and Borrowing	457
12.	Money, Credit and Banking	527
13.	Banking Procedure	569
14.	Trusts and Agencies	607
15.	International Banking	635
16.	Financial Planning	667
17.	Working Capital	707
18.	Fixed Capital	739
19.	Dividends and Surplus	779
20.	Intercorporate Relations	827
21.	Recapitalizations and Readjustments	891
22.	Reorganizations and Bankruptcy	927
23.	Pension and Profit-Sharing Plans	981
24.	Negotiable Instruments	1039
25.	Commodity Trading	1097
26.	Mathematics of Finance	1147
27.	Government Financing Agencies	1243

LIST OF SECTIONS

Alphabetic

SECTION		PAGE
13.	Banking Procedure	569
11.	Bond Financing and Borrowing	457
25.	Commodity Trading	1097
10.	Corporate Stock	405
19.	Dividends and Surplus	779
16.	Financial Planning	667
5.	Financial Reports and Analysis	199
18.	Fixed Capital	739
9.	Forms of Business Organization	367
27.	Government Financing Agencies	1243
20.	Intercorporate Relations	827
3.	Interest Rates	139
15.	International Banking	635
26.	Mathematics of Finance	1147
12.	Money, Credit and Banking	527
24.	Negotiable Instruments	1039
23.	Pension and Profit-Sharing Plans	981
8.	Promotion	347
21.	Recapitalizations and Readjustments	891
22.	Reorganizations and Bankruptcy	927
7.	Savings Institutions	305
2.	Securities Markets	63
6.	Security Analysis	261
1.	Security Selling	1
14.	Trusts and Agencies	607
4.	United States Government Obligations	173
17.	Working Capital	707